



safety glazing certification council

**JULY 1, 1987**

**certified products directory**  
**safety glazing material used in buildings**

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**MEETINGS OF THE CERTIFICATION COMMITTEE**

The Certification Committee of the Safety Glazing Certification Council met on March 16 & 17, 1987. Interested persons may obtain minutes of this meeting by writing to the Safety Glazing Certification Council.

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Certification in this directory is up-to-date as of July 1, 1987; however, products may be certified or certification removed from time to time. Please contact the SGCC office for the latest up-to-date information.

Requests for future copies of this directory, or any questions or comments should be directed to:

\* \* \* \* \*

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Industrial Park - Route 11  
Cortland, NY 13045

Telephone 607-753-6711

**ROSTER****SGCC BOARD OF DIRECTORS****Representing Public Interest**

Mario Cellarosi, NBS  
Mrs. Jean Cornwell, Consumer  
George L. Graf, Jr., Consumer  
Mrs. Sylvia Lav, Consumer  
Joseph E. Minor,  
Texas Tech University

**Representing Industry**

Robert L. Brown, Virginia Glass Products Corp.  
William C. Cooke, AFG Industries, Inc.  
Henry A. Gorry, Guardian Industries Corp.  
Gary W. Harris, Lear Siegler, Inc.  
Richard L. Morrison, Ford Motor Co., Glass Div.  
**Honorary Non-voting Member:**  
Norman Nitschke, Glasstech, Inc.

**SGCC Officers**

Richard L. Morrison, President  
Robert L. Brown, First Vice President  
Mario Cellarosi, Second Vice President  
Joseph E. Minor, Secretary  
William C. Cooke, Treasurer

**NOTE:** Effective January 1, 1986 the operation of the SGCC program was transferred to ETL Testing Laboratories, Inc., Industrial Park, Route 11, Cortland, NY 13045. Telephone: 607-753-6711. All inquiries related to the program should now be directed to ETL.

**SGCC CERTIFICATION COMMITTEE**

Henry A. Gorry, Chairman

John M. Barr, Vice-Chairman

<b>Licensee</b>	<b>Primary Member</b>	<b>First Alternate</b>	<b>Second Alternate</b>
AFG Industries, Inc.	William C. Cooke	Billie G. Nichols	Thomas C. Carson
American Flat Glass Distributors		Douglas A. Long	Freddie Michael
Ardco, Inc.	Andrew G. Menke		
The Chamberlain Group, Inc.	Dick Howk	Bob Gentry	Ned Skoog
Downey Glass Company	John R. Montcalm	Bernard Puttler	Serge E. Graur
Elgin Precision Glass Company, Inc.	Dan Cukierski	Rob Jaynes	
Falconer-Lewistown, Inc.	Richard E. Turner, Jr.	Carl Carmen, Jr.	Richard Stout
Falconer Glass Industries, Inc.	Richard E. Turner, Sr.	Carl Carmen, Jr.	Richard Stout
Flex-O-Glass, Inc.	Harold G. Warp	Delbert Christensen	
Ford Glass, Ltd.	Richard L. Morrison	Brian J. Burnet	
Fulton Glass Industries, Inc.	Paul F. Tumey	David Farley	Howard Bienenfeld
Gateway Industries	D. Mann	D. Pruitt	Henry A. Gorry
Gemtron	Frank DeFord		
General Glass Corporation	Paul Toltz	Randy Toltz	
Glass Tempering Service, Inc.	Virgil S. Taylor		
Glasstemp, Inc.	Steve Lacey		
Guardian Industries Corp.	Henry A. Gorry	R. L. Alonzo	
Hamilton Glass Products, Inc.	Robert A. Moss	John J. Summers	J. Bruce Crockett
Lear Siegler, Inc.	Gary Harris	Robert Avers	
Libbey-Owens-Ford Company	Christopher J. Barry	Mark S. Suffron	
Ohio Plate Glass Company	Gene Gilbert	John Barr	
PPG Industries, Inc.	Richard T. McGuire	Charles R. Sutermeister	John M. Schlueter
Sunglas Products, Inc.	Richard L. Morrison	Mitchel D. Edwards	
Tempered Glass Corporation	Paul F. Tumey		Howard Bienenfeld
Tempered Glass, Inc.	D. A. Sampsel	D. P. Singleton	W. A. Stone
Tempglass, Inc.	Irvin D. Fintel	John Colapietro	Mark Roman
Tempglass Eastern, Inc.	John C. Mulvanerty		
Temp-Tech Industries, Inc.	Bart Semeraro		
Texas Tempered Glass Company	Don T. Cope	James J. Garby	
TRACO (Three Rivers Aluminum)	Robert P. Randall	John Kalakos	
Vidrierias De Llodio, S.A.	A. Subinas Landa	Henry A. Gorry	
Viracon, Inc.	William Knutsen	Russ Huffer	Rick Voelker
Virginia Glass Products Corporation	Robert L. Brown	Brooks R. Leavitt	A. P. Stillman

**Member by virtue of being a director:**

National Bureau of Standards  
 Consumer  
 Consumer  
 Consumer  
 Texas Tech University  
 Glasstech, Inc.

Mario Cellarosi  
 Mrs. Jean Cornwell  
 George L. Graf, Jr.  
 Mrs. Sylvia Lav  
 Joseph E. Minor  
 Norman Nitschke

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Martin I. Cohen

Legal Counsel:

William M. Hannay

Auditor:

Dunstone, Kane, Bowles &amp; Wicks

Administrative Manager:

Claude F. Robb

Administrative Staff:

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### PROGRAM CONCEPT

The safety of the public is paramount. Manufacturers of safety glazing products, building code administrators and others responsible for the safety of the public, recognizing the need for a common standard for safety glazing materials, jointly established the Safety Glazing Certification Council (SGCC) in 1971.

The Safety Glazing Certification Council is a non-profit organization which has established and maintains a program to administer periodic testing as outlined in American National Standard Z97.1-1984, an internationally recognized standard for safety glazing in buildings. This standard subjects glazing materials to a practical test to determine that if they are broken by human contact, they break in a manner that would minimize the likelihood of cutting or piercing injury. SGCC's responsibilities are threefold: to assure a periodic testing program is maintained; to approve and register the form of the manufacturer's label; and to withdraw the manufacturer's authority to use that label if its products do not meet ANSI Z97.1-1984 standards.

Management and control of the program is vested in a board of directors, half representing industry and half representing public interest. The public interest representatives are empowered to veto any action regardless of the number present at a meeting. This insures against industry dominance of SGCC actions. The organization operates an independent third party certification and testing program.

The program uses independent testing laboratories under the supervision of a qualified administrator who is a professional engineer. He is unaffiliated with any manufacturer of safety glazing materials and is hired by and responsible to the Safety Glazing Certification Council. The manufacturer of the products listed herein has certified that the labeled materials comply with the safety characteristics established by ANSI Z97.1-1984. The compliance of the manufacturer with the requirements of that standard is being checked periodically by an independent testing laboratory under the supervision of SGCC.

Every manufacturer of safety glazing material is eligible and encouraged to apply for certification. However, his products are not accepted and certified until an independent laboratory test indicates compliance with the standard. Once certified, each product is assigned a SGCC certification number to identify it and the factory at which it is made. Then, at least twice a year, SGCC independently selects samples during unannounced visits to the manufacturing plant or randomly from the market place to ensure continued adherence to the standard. Based on these evaluation reports SGCC authorizes continued use of the certification label and the product listing published in this directory.

The directory is divided into three basic listings: the first is by numerical sequence of certified product numbers listing the manufacturer holding that number; the second is of manufacturers listed alphabetically by plants and the approved products manufactured at those plants; the third is by products listing all manufacturers and their plants approved for each product. There is also an alphabetical listing by manufacturers illustrating a typical label of that manufacturer. The table of contents lists various procedural and administrative information, as well as information as to where officers and directors may be located.

Information from SGCC concerning a statement of procedures or copies of the minutes are available to manufacturers, public interest groups and individuals, upon request.

CLASSIFIED TEMPERED GLASS PATTERNS1/8 inch shallow

(01) P-516	(02) Luxlite	(03) Factrolite	(09) Spraylite	(32) Muralex
(34) Velvex	(36) Ribbed	(37) Aquatex	(38) Finetex	(39) Industrex
(82) Pattern 62	(83) Pointex	(86) Showerlite	(87) Heliolite	(117) Solatex
(120) Sunadex	(147) Solatex I	(150) Solatex II		

1/8 inch medium

(04) Rattan	(05) Cotswold	(06) Patchwork	(07) Burlap	(08) Smooth Rough
(11) Flemish	(31) Skytex	(33) Seashell	(35) Flax	(52) Pattern 73
(56) Syenite	(57) Pattern 229	(154) Rain	(160) Model 10	(163) Model 11
(164) Model 12	(165) Spotswood			

1/8 inch deep

(10) Autumn

5/32 inch shallow

(59) Luxlite	(60) Factrolite	(64) Spraylite	(70) Muralex	(72) Velvex
(74) Ribbed	(75) Aquatex	(76) Finetex	(81) Pattern 6	(88) Pattern 100
(118) Solatex	(121) Sunadex	(123) P-516	(124) Heliolite	(126) Pattern 62
(127) Mistron Ace	(128) Showerlite	(148) Solatex I	(151) Solatex II	(153) Flax
(156) Clar 104	(157) Model 10	(158) Pontilhado	(161) Model 11	(162) Model 12

5/32 inch medium

(61) Cotswold	(62) Burlap	(63) Smooth Rough	(66) Flemish	(69) Skytex
(71) Seashell	(73) Flax	(77) Pattern 73	(78) Syenite	(79) Pattern 229
(80) Pattern 76	(130) Cathedral	(146) Pattern 28	(155) Rain	

5/32 inch deep

(65) Autumn	(67) Oceanic	(68) Roundel
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3/16 inch shallow

(50) Pattern 62	(51) P-516	(54) Showerlite	(116) Heliolite	(119) Solatex
(122) Sunadex	(125) Spraylite	(131) Industrex	(132) Velvex	(133) Aquatex
(134) Pattern 100	(135) Pattern 6	(136) Burlap	(137) Factrolite	(138) Satinlite
(139) Pluralite	(140) Flax	(141) Skytex	(142) Chinchilla	(149) Solatex I
(152) Solatex II	(159) Model 10			

3/16 inch medium

(58) Pattern 76	(143) Seashell	(144) Syenite	(145) Flemish
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3/16 inch deep

(12) Oceanic	(13) Roundel	(41) Lozenge
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210 inch shallow

(89) Velvex	(90) Muralex	(91) Industrex	(92) Aquatex	(93) Pattern 100
(94) Pattern 6	(95) Pattern 62	(96) Spraylite	(97) Burlap	(98) Factrolite
(99) Satinlite	(100) Luxlite	(101) J-3	(102) P-516	(103) Smooth Rough
(105) Cascade	(106) Pluralite	(108) Flax	(110) Skytex	(115) Chinchilla
(166) Spotswood				

210 inch medium

(107) Seashell	(109) Beadex	(111) Syenite	(112) Flemish	(113) Textured Linex
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210 inch deep

(104) Lozenge	(114) Broadlite
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7/32 inch shallow

(14) Velvex	(15) Muralex	(16) Industrex	(17) Aquatex	(18) Pattern 100
(19) Pattern 6	(20) Pattern 62	(21) Spraylite	(22) Burlap	(23) Factrolite
(24) Satinlite	(25) Luxlite	(26) J-3	(27) P-516	(28) Smooth Rough
(30) Cascade	(42) Pluralite	(44) Flax	(46) Skytex	(55) Textured Plate
(84) Chinchilla	(129) Orange Peel			

7/32 inch medium

(43) Seashell	(45) Beadex	(47) Syenite	(48) Flemish	(49) Textured Linex
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7/32 inch deep

(29) Lozenge	(53) Boardlite
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<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
12 Virginia Glass Products Corp	516 Downey Glass Co.	1044 Tempglass Southern, Inc
14 Virginia Glass Products Corp	520 Anglass Industries, Inc	1045 Tempglass Southern, Inc
24 AFG Industries, Inc	562 Ohio Plate Glass Company	1046 Tempglass Southern, Inc
28 AFG Industries, Inc	586 Chamberlain	1049 Ardco, Inc
40 Guardian Industries Corp	587 AFG Industries, Inc	1050 Ohio Plate Glass Company
41 Guardian Industries Corp	592 Tempglass, Inc	1058 Tempglass Eastern, Inc
54 Hamilton Glass Products, Inc	594 Tempglass, Inc	1059 Tempglass Eastern, Inc
57 Hamilton Glass Products, Inc	595 Tempglass, Inc	1062 Hehr International, Inc
60 PPG Industries, Inc	598 AFG Industries, Inc	1067 PPG Industries, Inc
61 PPG Industries, Inc	603 Downey Glass Co.	1073 Spectrum Glass Company
64 PPG Industries, Inc	604 Downey Glass Co.	1074 Spectrum Glass Company
70 PPG Industries, Inc	605 Downey Glass Co.	1075 Spectrum Glass Company
89 AFG Industries, Inc	606 Downey Glass Co.	1076 Spectrum Glass Company
90 AFG Industries, Inc	607 Downey Glass Co.	1077 Spectrum Glass Company
93 Virginia Glass Products Corp	608 Downey Glass Co.	1078 Spectrum Glass Company
94 Virginia Glass Products Corp	609 Downey Glass Co.	1079 Spectrum Glass Company
95 Virginia Glass Products Corp	630 Downey Glass Co.	1107 PPG Industries, Inc
118 Flex-O-Glass, Inc	631 Guardian Industries Corp	1108 PPG Industries, Inc
131 Guardian Industries Corp	633 Guardian Industries Corp	1110 PPG Industries, Inc
137 Texas Tempered Glass Company	639 ACI Glass Products, Inc	1111 PPG Industries, Inc
185 Ohio Plate Glass Company	640 ACI Glass Products, Inc	1112 PPG Industries, Inc
186 Ohio Plate Glass Company	654 Ohio Plate Glass Company	1113 PPG Industries, Inc
188 Ohio Plate Glass Company	662 Guardian Industries Corp	1118 Tempered Glass Corporation
194 PPG Industries, Inc	669 Texas Tempered Glass Company	1123 Fulton Glass Industries, Inc
195 PPG Industries, Inc	675 PPG Industries, Inc	1124 Fulton Glass Industries, Inc
220 AFG Industries, Inc	676 PPG Industries, Inc	1125 Fulton Glass Industries, Inc
249 PPG Industries, Inc	678 Downey Glass Co.	1126 Fulton Glass Industries, Inc
250 PPG Industries, Inc	709 Falconer Glass Industries Inc	1127 Fulton Glass Industries, Inc
295 PPG Industries, Inc	711 Falconer Glass Industries Inc	1139 AFG Industries, Inc
300 Guardian Industries Corp	712 Falconer Glass Industries Inc	1143 AFG Industries, Inc
320 Tempered Glass, Inc	933 Guardian Industries Corp	1157 ACI Glass Products, Inc
321 Tempered Glass, Inc	934 Guardian Industries Corp	1161 Guardian Industries Corp
322 Tempered Glass, Inc	935 Downey Glass Co.	1165 Colonial Mirror & Glass Corp
323 Tempered Glass, Inc	949 AFG Industries, Inc	1166 Colonial Mirror & Glass Corp
328 Ohio Plate Glass Company	952 PPG Industries, Inc	1167 Colonial Mirror & Glass Corp
337 Tempered Glass Corporation	955 AFG Industries, Inc	1173 Lear Siegler, Inc
338 Tempered Glass Corporation	968 Guardian Industries Corp	1180 General Glass Corporation
348 Tempered Glass Corporation	969 Guardian Industries Corp	1181 General Glass Corporation
382 PPG Industries, Inc	970 Guardian Industries Corp	1182 General Glass Corporation
390 Flex-Temp, Inc	971 Guardian Industries Corp	1192 Texas Tempered Glass Company
391 Flex-Temp, Inc	979 Tempglass Eastern, Inc	1200 Hamilton Glass Products, Inc
392 Flex-Temp, Inc	981 Tempglass Eastern, Inc	1201 Gemtron Corporation
400 PPG Industries, Inc	982 Tempglass Eastern, Inc	1204 Tempered Glass Int'l Inc
402 PPG Industries, Inc	986 Temp-Tech Industries, Inc	1216 Guardian Industries Corp
454 PPG Industries, Inc	999 Anglass Industries, Inc	1219 Tempglass Southern, Inc
455 PPG Industries, Inc	1000 Anglass Industries, Inc	1225 PPG Industries, Inc
458 Guardian Industries Corp	1002 Downey Glass Co.	1226 ACI Glass Products, Inc
471 Guardian Industries Corp	1004 Guardian Industries Corp	1230 American Flat Glass Distrib
474 PPG Industries, Inc	1034 Shaw Glass Company, Inc	1231 American Flat Glass Distrib
475 PPG Industries, Inc	1035 Shaw Glass Company, Inc	1232 American Flat Glass Distrib
482 Tempered Glass Int'l Inc	1036 Shaw Glass Company, Inc	1235 Guardian Industries Corp
483 Tempered Glass Int'l Inc	1037 Shaw Glass Company, Inc	1238 Glass Tempering Service, Inc
487 Guardian Industries Corp	1039 Tempglass, Inc	1241 Tempered Glass Int'l Inc
514 Downey Glass Co.	1041 Ardco, Inc	1248 Guardian Industries Corp
515 Downey Glass Co.	1042 Ardco, Inc	1249 Guardian Industries Corp



<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
1250 Guardian Industries Corp	1371 Elgin Precision Glass Co Inc	1459 The Glass Factory, Inc.
1251 Guardian Industries Corp	1372 Elgin Precision Glass Co Inc	1460 The Glass Factory, Inc.
1253 Guardian Industries Corp	1374 Sunglass Products, Inc.	1461 The Glass Factory, Inc.
1259 Tempglass Eastern, Inc	1376 Chamberlain	1462 Guardian Industries Corp
1265 Howe-Martzt Glass Company	1377 Chamberlain	1463 Guardian Industries Corp
1266 Howe-Martzt Glass Company	1378 Chamberlain	1464 Guardian Industries Corp
1268 Howe-Martzt Glass Company	1379 Hordis Brothers, Inc.	1465 Lin's Glass Company, LTD
1269 Howe-Martzt Glass Company	1380 Hordis Brothers, Inc.	1466 O & W Glass Industries, Inc
1270 Howe-Martzt Glass Company	1381 Glasstemp, Inc.	1467 Nashville Tempered Glass Corp
1275 Virginia Glass Products Corp	1382 Glasstemp, Inc.	1468 Insulpane, Inc
1280 Falconer Glass Industries Inc	1383 Glasstemp, Inc.	1469 Insulpane, Inc
1281 Ohio Plate Glass Company	1384 Glasstemp, Inc.	1470 Insulpane, Inc
1282 Falconer-Lewistown, Inc	1385 Hamilton Glass Products, Inc	1471 Insulpane, Inc
1284 Falconer-Lewistown, Inc	1386 Hamilton Glass Products, Inc	1472 Insulpane, Inc
1286 Ohio Plate Glass Company	1387 Hamilton Glass Products, Inc	1473 Insulpane, Inc
1287 Ohio Plate Glass Company	1388 Ohio Plate Glass Company	1474 Tempered Glass, Inc
1292 San Jacinto Glass Co	1389 Glass Tempering Service, Inc	1476 Viracon, Inc
1293 San Jacinto Glass Co	1390 AFG Industries, Inc	1477 Gemtron Corporation
1294 San Jacinto Glass Co	1393 Saint Gobain	1479 Hankuk Glass Industry, LTD
1295 San Jacinto Glass Co	1394 Gateway Industries	1480 Hankuk Glass Industry, LTD
1296 San Jacinto Glass Co	1395 Tempered Glass Corporation	1481 Hankuk Glass Industry, LTD
1298 PPG Industries, Inc	1397 Empire Glass, Inc	1482 Hankuk Glass Industry, LTD
1299 Shaw Glass Company, Inc	1398 Empire Glass, Inc	1483 Hankuk Glass Industry, LTD
1301 Guardian Industries Corp	1399 Empire Glass, Inc	1484 Shaw Glass Company, Inc
1303 Guardian Industries Corp	1400 Empire Glass, Inc	1485 Ford Glass LTD
1304 Guardian Industries Corp	1401 Empire Glass, Inc	1486 Ford Glass LTD
1308 TRACO (Three Rivers Alum.)	1402 Empire Glass, Inc	1487 Ford Glass LTD
1310 TRACO (Three Rivers Alum.)	1403 Viracon, Inc	1488 Ford Glass LTD
1311 TRACO (Three Rivers Alum.)	1404 Viracon, Inc	1489 Ford Glass LTD
1314 Guardian Industries Corp	1405 American Flat Glass Distrib	1490 Ford Glass LTD
1315 Falconer-Lewistown, Inc	1406 American Flat Glass Distrib	1491 Ford Glass LTD
1316 Falconer-Lewistown, Inc	1408 Texas Tempered Glass Company	1492 Hehr Glass Company
1318 Guardian Industries Corp	1413 Hankuk Glass Industry, LTD	1493 Hehr Glass Company
1323 Ardco, Inc	1414 AFG Industries, Inc	1494 Havlin Witkin Corporation
1326 Fulton Glass Industries, Inc	1415 American Flat Glass Distrib	1495 Havlin Witkin Corporation
1329 Tempered Glass Corporation	1416 Nashville Tempered Glass Corp	1496 Havlin Witkin Corporation
1330 Falconer Glass Industries Inc	1417 Nashville Tempered Glass Corp	1497 Havlin Witkin Corporation
1332 Gemtron Corporation	1420 Tempglass, Inc	1498 Havlin Witkin Corporation
1334 Gemtron Corporation	1421 Hordis Brothers, Inc.	1499 Geneva Glass Industries
1336 PPG Industries, Inc	1422 Gemtron Corporation	1500 Geneva Glass Industries
1338 Tempglass Eastern, Inc	1424 Gemtron Corporation	1501 Geneva Glass Industries
1340 Glass Tempering Service, Inc	1426 Gemtron Corporation	1502 Geneva Glass Industries
1344 Howe-Martzt Glass Company	1428 American Flat Glass Distrib	1503 Geneva Glass Industries
1346 Ashai Glass Company, LTD	1429 O & W Glass Industries, Inc	1504 Geneva Glass Industries
1355 Gateway Industries	1436 AFG Industries, Inc	1505 Perma*View Processed Glass
1356 Gateway Industries	1437 Flex-Temp, Inc	1506 Perma*View Processed Glass
1357 Gateway Industries	1441 Sumitec, Inc	1507 Hehr Glass Company
1358 Gateway Industries	1448 Hordis Brothers, Inc.	1508 Viracon, Inc
1359 Gateway Industries	1452 Ohio Plate Glass Company	1509 Viracon, Inc
1360 Lear Siegler, Inc	1453 Sunbelt Glass, Inc	1510 Hehr International, Inc
1361 Sunglass Products, Inc.	1454 Sunbelt Glass, Inc	1511 Air Seal Insul Glass Units Co
1362 Sunglass Products, Inc.	1455 Sunbelt Glass, Inc	1512 Air Seal Insul Glass Units Co
1363 Sunglass Products, Inc.	1456 Sunbelt Glass, Inc	1513 Air Seal Insul Glass Units Co
1369 Elgin Precision Glass Co Inc	1457 Sunbelt Glass, Inc	1514 Hehr International, Inc
1370 Elgin Precision Glass Co Inc	1458 The Glass Factory, Inc.	1515 Guardian Industries Corp

<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
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1516 Hehr Glass Company	1524 American Flat Glass Distrib	1532 Arch Tempered Glass Products
1517 Hehr International, Inc	1525 Bogardus Wilson Ltd.	1533 Glasstemp, Inc.
1518 American Flat Glass Distrib	1526 Arch Tempered Glass Products	1534 Glasstemp, Inc.
1519 American Flat Glass Distrib	1527 Arch Tempered Glass Products	1535 ACI Glass Products, Inc
1520 American Flat Glass Distrib	1528 Arch Tempered Glass Products	1536 Glasstemp, Inc.
1521 American Flat Glass Distrib	1529 Arch Tempered Glass Products	1537 Flex-Temp, Inc
1522 American Flat Glass Distrib	1530 Arch Tempered Glass Products	2000 Gemtron Corporation
1523 American Flat Glass Distrib	1531 Arch Tempered Glass Products	

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>ACI GLASS PRODUCTS, INC.; SANTA FE SPRINGS, CA</b>					<b>ARDCO, INC; CHICAGO, IL (CON'T)</b>				
1157	3/16	( 5.0)	TTG	U	1042	3/16	( 5.0)	TTG	U
1535	1/4	( 6.0)	TTG	U	1049	1/4	( 6.0)	TTG	U
639	3/8	(10.0)	TTG	U	<b>ASHAI GLASS COMPANY, LTD.; TOKYO, JAPAN</b>				
640	1/2	(12.0)	TTG	U	1346	3/8	(10.0)	TTG	U
1226	1/8	( 3.2)	TPG(S)	U	<b>BOGARDUS WILSON LTD.; WINNIPEG, MANITOBA, CANADA</b>				
<b>AFG INDUSTRIES, INC.; BRIDGEPORT, WV</b>					1525	1/2	(12.0)	TTG	U
1436	1/8	( 3.0)	TTG	U	<b>THE CHAMBERLAIN GROUP, INC.; MALVERN, AR</b>				
<b>AFG INDUSTRIES, INC.; GREENLAND, TN</b>					586	1/8	( 3.0)	TTG	U
598	1/8	( 3.0)	TTG	U	1376	5/32	( 4.0)	TTG	U
955	5/32	( 4.0)	TTG	U	1377	3/16	( 5.0)	TTG	U
220	3/16	( 5.0)	TTG	U	1378	1/4	( 6.0)	TTG	U
89	1/4	( 6.0)	TTG	U	<b>COLONIAL MIRROR AND GLASS CORP.; BROOKLYN, NY</b>				
90	3/8	(10.0)	TTG	U	1165	1/4	( 6.0)	TTG	U
587	1/8	( 3.2)	TPG(S)	U	1166	3/8	(10.0)	TTG	U
1139	3/16	( 4.8)	TPG(S)	U	1167	1/2	(12.0)	TTG	U
<b>AFG INDUSTRIES, INC.; KINGSPORT, TN</b>					<b>DOWNEY GLASS COMPANY; DOWNEY, CA</b>				
1390	1/8	( 3.0)	TTG	U	603	1/8	( 3.0)	TTG	U
949	5/32	( 4.0)	TTG	U	1002	5/32	( 4.0)	TTG	U
28	3/16	( 5.0)	TTG	U	606	3/16	( 5.0)	TTG	U
24	1/4	( 6.0)	TTG	U	609	1/4	( 6.0)	TTG	U
1414	1/8	( 3.2)	TPG(S)	U	604	1/8	( 3.2)	TPG(S)	U
1143	3/16	( 4.8)	TPG(S)	U	607	3/16	( 4.8)	TPG(S)	U
<b>AIR SEAL INSULATING GLASS UNITS CO; GLOUCESTER CITY, NJ</b>					608	7/32	( 5.6)	TPG(S)	U
1511	1/8	( 3.0)	OCG	U	605	1/8	( 3.2)	TPG(M)	U
1512	3/16	( 5.0)	OCG	U	<b>DOWNEY GLASS COMPANY; LOS ANGELES, CA</b>				
1513	1/4	( 6.0)	OCG	U	630	3/16	( 5.0)	TTG	U
<b>AMERICAN FLAT GLASS DISTRIBUTORS; FALL RIVER, MA</b>					514	1/4	( 6.0)	TTG	U
1518	1/8	( 3.0)	TTG	U	515	3/8	(10.0)	TTG	U
1519	3/16	( 5.0)	TTG	U	516	1/2	(12.0)	TTG	U
1520	1/4	( 6.0)	TTG	U	935	3/16	( 4.8)	TPG(S)	U
1521	3/8	(10.0)	TTG	U	678	7/32	( 5.6)	TPG(S)	U
1522	1/2	(12.0)	TTG	U	<b>ELGIN PRECISION GLASS COMPANY, INC; ELGIN, IL</b>				
1524	5/32	( 4.0)	TPG	U	1369	1/8	( 3.0)	TTG	U
1523	3/16	( 4.8)	TPG	U	1370	5/32	( 4.0)	TTG	U
<b>AMERICAN FLAT GLASS DISTRIBUTORS; MARIETTA, GA</b>					1371	3/16	( 5.0)	TTG	U
1405	1/8	( 3.0)	TTG	U	1372	1/4	( 6.0)	TTG	U
1230	3/16	( 5.0)	TTG	U	<b>EMPIRE GLASS, INC.; BRONX, NY</b>				
1231	1/4	( 6.0)	TTG	U	1397	1/8	( 3.0)	TTG	U
1232	3/8	(10.0)	TTG	U	1398	3/16	( 5.0)	TTG	U
1406	1/2	(12.0)	TTG	U	1399	1/4	( 6.0)	TTG	U
1428	5/32	( 4.0)	TPG(S)	U	1400	3/8	(10.0)	TTG	U
1415	3/16	( 4.8)	TPG(S)	U	1401	1/2	(12.0)	TTG	U
<b>ANGLASS INDUSTRIES, INC.; SAN FERNANDO, CA</b>					1402	3/4	(19.0)	TTG	U
520	1/8	( 3.0)	TTG	U	<b>FALCONER GLASS INDUSTRIES, INC.; FALCONER, NY</b>				
999	3/16	( 5.0)	TTG	U	709	1/4	( 6.0)	TTG	U
1000	1/4	( 6.0)	TTG	U	1280	3/8	(10.0)	TTG	U
<b>ARCH TEMPERED GLASS PRODUCTS; ORLANDO, FL</b>					711	1/2	(12.0)	TTG	U
1526	1/8	( 3.0)	TTG	U	712	3/4	(19.0)	TTG	U
1527	3/16	( 5.0)	TTG	U	1330	3/16	( 4.8)	TPG(S)	U
1528	1/4	( 6.0)	TTG	U	<b>FALCONER-LEWISTOWN, INC.; LEWISTOWN, PA</b>				
1529	3/8	(10.0)	TTG	U	1282	7/32	( 5.5)	LTG( .015)	U
1530	1/2	(12.0)	TTG	U	1284	1/4	( 6.0)	LTG( .015)	U
1531	1/8	( 3.0)	TPG	U	1315	3/8	(10.0)	LTG( .015)	U
1532	5/32	( 4.0)	TPG	U	1316	1/2	(12.0)	LTG( .015)	U
<b>ARDCO, INC; CHICAGO, IL</b>					<b>FLEX-O-GLASS, INC.; DIXON, IN</b>				
1041	1/8	( 3.0)	TTG	U	118	0.080 inch through 0.125 inch			U
1323	5/32	( 4.0)	TTG	U	smooth extruded acrylic				

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>FLEX-TEMP, INC.; IRVING, TX</b>					<b>GLASSTEMP, INC.; BENSENVILLE, IL</b>				
1437	3/16	( 5.0)	TTG	U	1534	1/8	( 3.0)	TTG	U
390	1/4	( 6.0)	TTG	U	1381	3/16	( 5.0)	TTG	U
391	3/8	(10.0)	TTG	U	1382	1/4	( 6.0)	TTG	U
392	1/2	(12.0)	TTG	U	1383	3/8	(10.0)	TTG	U
1537	3/16	( 4.8)	TPG	U	1384	1/2	(12.0)	TTG	U
<b>FORD GLASS LTD.; ONTARIO, CANADA</b>					1536	3/8	(10.0)	TBG	U
1485	1/8	( 3.0)	TTG	U	1533	1/2	(12.0)	TBG	U
1486	5/32	( 4.0)	TTG	U	<b>GUARDIAN INDUSTRIES CORP.; CARLETON, MI</b>				
1487	3/16	( 5.0)	TTG	U	933	1/8	( 3.0)	TTG	U
1488	7/32	( 5.6)	TTG	U	934	5/32	( 4.0)	TTG	U
1489	1/4	( 6.0)	TTG	U	631	3/16	( 5.0)	TTG	U
1490	3/8	(10.0)	TTG	U	131	1/4	( 6.0)	TTG	U
1491	1/2	(12.0)	TTG	U	<b>GUARDIAN INDUSTRIES CORP.; CORSICANA, TX</b>				
<b>FULTON GLASS INDUSTRIES, INC.; RED OAK, GA</b>					1248	1/8	( 3.0)	TTG	U
1123	5/32	( 4.0)	TTG	U	1249	5/32	( 4.0)	TTG	U
1124	3/16	( 5.0)	TTG	U	1250	3/16	( 5.0)	TTG	U
1125	1/4	( 6.0)	TTG	U	1251	1/4	( 6.0)	TTG	U
1126	3/8	(10.0)	TTG	U	1253	3/8	(10.0)	TTG	U
1127	1/2	(12.0)	TTG	U	1463	1/8	( 3.2)	TPG(S)	U
1326	3/16	( 4.8)	TPG(S)	U	1314	5/32	( 4.0)	TPG(S)	U
<b>GATEWAY INDUSTRIES; ROGERS, AR</b>					1464	7/32	( 5.6)	TPG(S)	U
1355	1/8	( 3.0)	TTG	U	<b>GUARDIAN INDUSTRIES CORP.; FORT LAUDERDALE, FL</b>				
1356	3/16	( 5.0)	TTG	U	1161	1/8	( 3.0)	TTG	U
1357	1/4	( 6.0)	TTG	U	633	3/16	( 5.0)	TTG	U
1358	1/8	( 3.2)	TPG(S)	U	40	1/4	( 6.0)	TTG	U
1359	5/32	( 4.0)	TPG(S)	U	41	3/8	(10.0)	TTG	U
1394	3/16	( 4.8)	TPG(D)	U	1004	1/2	(12.0)	TTG	U
<b>GEMTRON CORPORATION; SWEETWATER, TN</b>					1318	3/16	( 4.8)	TPG(S)	U
1334	1/8	( 3.0)	TTG	U	<b>GUARDIAN INDUSTRIES CORP.; KINGSBURG, CA</b>				
1332	5/32	( 4.0)	TTG	U	968	1/8	( 3.0)	TTG	U
1426	.169	( 4.3)	TTG	U	969	5/32	( 4.0)	TTG	U
1201	3/16	( 5.0)	TTG	U	970	3/16	( 5.0)	TTG	U
1477	1/4	( 6.0)	TTG	U	971	1/4	( 6.0)	TTG	U
1422	1/8	( 3.2)	TPG(S)	U	1303	1/8	( 3.2)	TPG(S)	U
1424	5/32	( 4.0)	TPG(S)	U	1304	3/16	( 4.8)	TPG(S)	U
2000	5/32	( 4.0)	TPG(S)	U	1301	5/32	( 4.0)	TPG(M)	U
<b>GENERAL GLASS CORPORATION; DENVER, CO</b>					<b>GUARDIAN INDUSTRIES CORP.; UPPER SANDUSKY, OH</b>				
1180	5/32	( 4.0)	TTG	U	1515	3/16	( 5.0)	LTG( .030)	U
1181	3/16	( 5.0)	TTG	U	458	7/32	( 5.5)	LTG( .030)	U
1182	1/4	( 6.0)	TTG	U	487	1/4	( 6.0)	LTG( .030)	U
<b>GENEVA GLASS INDUSTRIES; GENEVA, IL</b>					<b>GUARDIAN INDUSTRIES CORP.; WEBSTER, MA</b>				
1499	1/8	( 3.0)	TTG	U	300	1/8	( 3.0)	TTG	U
1502	5/32	( 4.0)	TTG	U	1216	3/16	( 5.0)	TTG	U
1500	3/16	( 5.0)	TTG	U	662	1/4	( 6.0)	TTG	U
1501	1/4	( 6.0)	TTG	U	471	3/8	(10.0)	TTG	U
1503	3/8	(10.0)	TTG	U	1235	1/2	(12.0)	TTG	U
1504	1/2	(12.0)	TTG	U	<b>GUARDIAN INDUSTRIES CORP.; TILLSONBURG, ONTARIO, CANADA</b>				
<b>THE GLASS FACTORY, INC.; RONKONKOMA, NY</b>					1462	1/8	( 3.0)	TTG	U
1458	1/8	( 3.0)	TTG	U	<b>HAMILTON GLASS PRODUCTS, INC.; VINCENNES, IN</b>				
1459	3/16	( 5.0)	TTG	U	54	1/8	( 3.0)	TTG	U
1460	1/4	( 6.0)	TTG	U	1385	5/32	( 4.0)	TTG	U
1461	1/2	(12.0)	TTG	U	1200	3/16	( 5.0)	TTG	U
<b>GLASS TEMPERING SERVICE, INC.; DETROIT, MI</b>					57	1/4	( 6.0)	TTG	U
1389	1/8	( 3.0)	TTG	30" by 76"	1386	5/32	( 4.0)	TPG(S)	U
1238	1/4	( 6.0)	TTG	U	1387	3/16	( 4.8)	TPG(S)	U
1340	3/16	( 4.8)	TPG(S)	34" by 72"	<b>HANKUK GLASS INDUSTRY, LTD.; SEOUL, KOREA</b>				
					1479	5/32	( 4.0)	TTG	U
					1480	3/16	( 5.0)	TTG	U

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>HANKUK GLASS INDUSTRY, LTD.; SEOUL, KOREA (CON'T)</b>					<b>OHIO PLATE GLASS COMPANY; LEWISBURG, OH</b>				
1413	1/4	( 6.0)	TTG	U	1050	1/8	( 3.0)	TTG	U
1481	5/16	( 8.0)	TTG	U	1452	5/32	( 4.0)	TTG	U
1482	3/8	(10.0)	TTG	U	185	3/16	( 5.0)	TTG	U
1483	1/2	(12.0)	TTG	U	186	1/4	( 6.0)	TTG	U
<b>HAVLIN WITKIN CORPORATION; SANTA CLARA, CA</b>					188	3/16	( 4.8)	TPG(S)	U
1494	3/16	( 5.0)	TTG	U	562	7/32	( 5.6)	TPG(S)	U
1496	1/4	( 6.0)	TTG	U	654	1/8	( 3.2)	TPG(M)	U
1497	3/8	(10.0)	TTG	U	328	3/16	( 4.8)	TPG(D)	U
1498	1/2	(12.0)	TTG	U	<b>PERMA*VIEW PROCESSED GLASS; CLARKSVILLE, TN</b>				
1495	7/32	( 5.6)	TPG(S)	U	1505	1/8	( 3.0)	TTG	U
<b>HEHR GLASS COMPANY; NEWTON, KS</b>					1506	3/16	( 5.0)	TTG	U
1492	1/8	( 3.0)	TTG	U	<b>PPG INDUSTRIES, INC.; CARLISLE, PA</b>				
1493	3/16	( 5.0)	TTG	U	250	1/8	( 3.0)	TTG	U
1516	1/4	( 6.0)	TTG	U	675	5/32	( 4.0)	TTG	U
1507	5/32	( 4.0)	TPG(S)	U	249	3/16	( 5.0)	TTG	U
<b>HEHR INTERNATIONAL, INC.; CHESANING, MI</b>					382	1/4	( 6.0)	TTG	U
1062	1/8	( 3.0)	TTG	U	<b>PPG INDUSTRIES, INC.; CRESTLINE, OH</b>				
1510	3/16	( 5.0)	TTG	32" by 60"	60	1/8	( 3.0)	TTG	U
1517	1/4	( 6.0)	TTG	U	<b>PPG INDUSTRIES, INC.; DALLAS, TX</b>				
1514	1/8	( 3.0)	TPG	32" by 60"	400	3/16	( 5.0)	TTG	U
<b>HORDIS BROTHERS, INC.; WARRENTON, MO</b>					402	1/4	( 6.0)	TTG	U
1379	1/8	( 3.0)	TTG	U	1107	3/8	(10.0)	TTG	U
1380	5/32	( 4.0)	TTG	U	1108	1/2	(12.0)	TTG	U
1421	3/16	( 5.0)	TTG	U	1225	3/4	(19.0)	TTG	U
1448	1/4	( 6.0)	TTG	U	<b>PPG INDUSTRIES, INC.; FORD CITY, PA</b>				
<b>HOWE-MARTZ GLASS COMPANY; DETROIT, MI</b>					61	3/16	( 5.0)	TTG	U
1265	5/32	( 4.0)	TTG	U	70	1/4	( 6.0)	TTG	U
1266	3/16	( 5.0)	TTG	U	<b>PPG INDUSTRIES, INC.; FRESNO, CA</b>				
1268	1/4	( 6.0)	TTG	U	295	1/8	( 3.0)	TTG	U
1269	3/8	(10.0)	TTG	U	676	5/32	( 4.0)	TTG	U
1270	1/2	(12.0)	TTG	U	64	3/16	( 5.0)	TTG	U
1344	3/16	( 4.8)	TPG(S)	U	<b>PPG INDUSTRIES, INC.; HUNT VALLEY, MD</b>				
<b>INSULPANE, INC.; WEST WINDSOR, NY</b>					454	3/16	( 5.0)	TTG	U
1468	1/8	( 3.0)	TTG	U	455	1/4	( 6.0)	TTG	U
1469	3/16	( 5.0)	TTG	U	474	3/8	(10.0)	TTG	U
1470	1/4	( 6.0)	TTG	U	475	1/2	(12.0)	TTG	U
1471	3/8	(10.0)	TTG	U	952	3/4	(19.0)	TTG	U
1472	1/2	(12.0)	TTG	U	<b>PPG INDUSTRIES, INC.; MIAMI, FL</b>				
1473	7/32	( 5.6)	TPG(S)	U	195	3/16	( 5.0)	TTG	U
<b>LEAR SIEGLER, INC.; WICHITA, KS</b>					194	1/4	( 6.0)	TTG	U
1360	3/16	( 5.0)	LTG( .030)	U	1067	3/8	(10.0)	TTG	U
1173	7/32	( 5.5)	LTG( .015)	U	1336	1/2	(12.0)	TTG	U
<b>LIN'S GLASS COMPANY, LTD.; TAIWAN, R.O.C.</b>					1298	3/16	( 4.8)	TPG(S)	U
1465	1/8	( 3.0)	TTG	20" by 36"	<b>PPG INDUSTRIES, INC.; WICHITA FALLS, TX</b>				
<b>NASHVILLE TEMPERED GLASS CORP.; NASHVILLE, TN</b>					1110	1/8	( 3.0)	TTG	U
1416	1/8	( 3.0)	TTG	U	1111	5/32	( 4.0)	TTG	U
1467	3/16	( 5.0)	TTG	U	1112	3/16	( 5.0)	TTG	U
1417	1/4	( 6.0)	TTG	U	1113	1/4	( 6.0)	TTG	U
<b>O &amp; W GLASS INDUSTRIES, INC.; EVERETT, WA</b>					<b>SAINT GOBAIN; THE NETHERLANDS</b>				
1429	1/8	( 3.0)	TTG	U	1393	1/4	( 6.0)	TTG	U
1466	5/32	( 4.0)	TTG	U	<b>SAN JACINTO GLASS CO.; HOUSTON, TX</b>				
<b>OHIO PLATE GLASS COMPANY; JEFFERSON, TX</b>					1292	1/8	( 3.0)	TTG	U
1281	1/8	( 3.0)	TTG	U	1293	3/16	( 5.0)	TTG	U
1286	3/16	( 5.0)	TTG	U	1294	1/4	( 6.0)	TTG	U
1287	1/4	( 6.0)	TTG	U	1295	3/8	(10.0)	TTG	U
1388	1/8	( 3.2)	TPG(M)	U	1296	1/2	(12.0)	TTG	U



SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>SHAW GLASS COMPANY, INC.; SOUTH EASTON, MA</b>					<b>TEMPGLASS EASTERN, INC.; NORCROSS, GA (CON'T)</b>				
1484	1/8	( 3.0)	TTG	U	981	3/16	( 5.0)	TTG	U
1034	3/16	( 5.0)	TTG	U	982	1/4	( 6.0)	TTG	U
1035	1/4	( 6.0)	TTG	U	1058	3/8	(10.0)	TTG	U
1036	3/8	(10.0)	TTG	U	1059	1/2	(12.0)	TTG	U
1037	1/2	(12.0)	TTG	U	1338	3/16	( 4.8)	TPG(S)	U
1299	3/16	( 4.8)	TPG(S)	U	<b>TEMPGLASS SOUTHERN, INC.; GRAND PRAIRIE, TX</b>				
<b>SPECTRUM GLASS COMPANY; CLINTON, NC</b>					1219	3/16	( 5.0)	TTG	U
1073	3/16	( 5.0)	TTG	U	1044	1/4	( 6.0)	TTG	U
1074	1/4	( 6.0)	TTG	U	1045	3/8	(10.0)	TTG	U
1075	5/16	( 8.0)	TTG	U	1046	1/2	(12.0)	TTG	U
1076	3/8	(10.0)	TTG	U	<b>TEXAS TEMPERED GLASS COMPANY; HOUSTON, TX</b>				
1077	1/2	(12.0)	TTG	U	1192	3/16	( 5.0)	TTG	U
1078	5/8	(16.0)	TTG	U	137	1/4	( 6.0)	TTG	U
1079	3/4	(19.0)	TTG	U	1408	3/8	(10.0)	TTG	U
<b>SUMITEC, INC.; BENTON HARBOR, MI</b>					669	1/2	(12.0)	TTG	U
1441	7/32	( 5.6)	LTG	U	<b>TRACO (THREE RIVERS ALUM.); WARRENDALE, PA</b>				
<b>SUNBELT GLASS, INC.; TULSA, OK</b>					1308	1/8	( 3.0)	TTG	U
1453	1/8	( 3.0)	TTG	U	1310	3/16	( 5.0)	TTG	U
1454	3/16	( 5.0)	TTG	U	1311	1/4	( 6.0)	TTG	U
1455	1/4	( 6.0)	TTG	U	<b>VIRACON, INC.; OWATONNA, MN</b>				
1456	3/8	(10.0)	TTG	U	1476	1/8	( 3.0)	TTG	U
1457	1/2	(12.0)	TTG	U	1403	3/16	( 5.0)	TTG	U
<b>SUNGLAS PRODUCTS, INC.; CLAREMORE, OK</b>					1404	1/4	( 6.0)	TTG	U
1361	5/32	( 4.0)	TTG	U	1508	3/8	(10.0)	TTG	U
1362	3/16	( 5.0)	TTG	U	1509	1/2	(12.0)	TTG	U
1363	1/4	( 6.0)	TTG	U	<b>VIRGINIA GLASS PRODUCTS CORP.; MARTINSVILLE, VA</b>				
1374	3/8	(10.0)	TTG	U	12	3/16	( 5.0)	TTG	U
<b>TEMP-TECH INDUSTRIES, INC.; CHICAGO, IL</b>					14	1/4	( 6.0)	TTG	U
986	1/4	( 6.0)	TTG	U	93	3/8	(10.0)	TTG	U
<b>TEMPERED GLASS CORPORATION; TAMPA, FL</b>					94	1/2	(12.0)	TTG	U
1395	3/16	( 5.0)	TTG	U	95	3/4	(19.0)	TTG	U
337	1/4	( 6.0)	TTG	U	1275	3/16	( 4.8)	TPG(S)	U
348	3/8	(10.0)	TTG	U	<b>CERTIFIED PRODUCTS KEY</b>				
338	1/2	(12.0)	TTG	U	<b>TTG = TEMPERED TRANSPARENT GLASS</b>				
1329	3/16	( 4.8)	TPG(S)	U	<b>TPG = TEMPERED PATTERN GLASS</b>				
1118	7/32	( 5.6)	TPG(S)	U	<b>TBG = TEMPERED BENT GLASS</b>				
<b>TEMPERED GLASS, INC.; AUSTELL, GA</b>					<b>LTG = LAMINATED TRANSPARENT GLASS</b>				
1474	5/32	( 4.0)	TTG	U	<b>LPG = LAMINATED PATTERN GLASS</b>				
320	3/16	( 5.0)	TTG	U	<b>OCG = ORGANIC COATED GLASS</b>				
321	1/4	( 6.0)	TTG	U	<b>(S) = SHALLOW PATTERN</b>				
322	3/8	(10.0)	TTG	U	<b>(M) = MEDIUM PATTERN</b>				
323	1/2	(12.0)	TTG	U	<b>(D) = DEEP PATTERN</b>				
<b>TEMPERED GLASS INTERNATIONAL, INC.; UNION CITY, CA</b>					<b>U = UNLIMITED SIZE</b>				
1241	3/16	( 5.0)	TTG	U					
1204	1/4	( 6.0)	TTG	U					
482	3/8	(10.0)	TTG	U					
483	1/2	(12.0)	TTG	U					
<b>TEMPGLASS, INC.; PERRYSBURG, OH</b>									
1039	1/8	( 3.0)	TTG	U					
592	3/16	( 5.0)	TTG	U					
1420	1/4	( 6.0)	TTG	U					
594	3/8	(10.0)	TTG	U					
595	1/2	(12.0)	TTG	U					
<b>TEMPGLASS EASTERN, INC.; NORCROSS, GA</b>									
979	1/8	( 3.0)	TTG	U					
1259	5/32	( 4.0)	TTG	U					

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS</b>		
<b>1/8 inch tempered transparent glass</b>		
AFG Industries, Inc; Bridgeport, WV	1436	U
AFG Industries, Inc; Greenland, TN	598	U
AFG Industries, Inc; Kingsport, TN	1390	U
American Flat Glass Distrib; Fall River, MA	1518	U
American Flat Glass Distrib; Marietta, GA	1405	U
Anglass Industries, Inc; San Fernando, CA	520	U
Arch Tempered Glass Products; Orlando, FL	1526	U
Ardco, Inc; Chicago, IL	1041	U
Chamberlain; Malvern, AR	586	U
Downey Glass Co.; Downey, CA	603	U
Elgin Precision Glass Co Inc; Elgin, IL	1369	U
Empire Glass, Inc; Bronx, NY	1397	U
Ford Glass LTD; Ontario, Canada	1485	U
Gateway Industries; Rogers, AR	1355	U
Gemtron Corporation; Sweetwater, TN	1334	U
Geneva Glass Industries; Geneva, IL	1499	U
The Glass Factory, Inc.; Ronkonkoma, NY	1458	U
Glass Tempering Service, Inc; Detroit, MI	1389	30" by 76"
Glasstemp, Inc.; Bensenville, IL	1534	U
Guardian Industries Corp; Carleton, MI	933	U
Guardian Industries Corp; Corsicana, TX	1248	U
Guardian Industries Corp; Fort Lauderdale, FL	1161	U
Guardian Industries Corp; Kingsburg, CA	968	U
Guardian Industries Corp; Webster, MA	300	U
Guardian Industries Corp; Tillsonburg, Ontario, Canada	1462	U
Hamilton Glass Products, Inc; Vincennes, IN	54	U
Hehr Glass Company; Newton, KS	1492	U
Hehr International, Inc; Chesaning, MI	1062	U
Hordis Brothers, Inc.; Warrenton, MO	1379	U
Insulpane, Inc; West Windsor, NY	1468	U
Lin's Glass Company, LTD; Taiwan, R.O.C.	1465	20" by 36"
Nashville Tempered Glass Corp; Nashville, TN	1416	U
O & W Glass Industries, Inc; Everett, WA	1429	U
Ohio Plate Glass Company; Jefferson, TX	1281	U
Ohio Plate Glass Company; Lewisburg, OH	1050	U
Perma*View Processed Glass; Clarksville, TN	1505	U
PPG Industries, Inc; Carlisle, PA	250	U
PPG Industries, Inc; Crestline, OH	60	U
PPG Industries, Inc; Fresno, CA	295	U
PPG Industries, Inc; Wichita Falls, TX	1110	U
San Jacinto Glass Co; Houston, TX	1292	U
Shaw Glass Company, Inc; South Easton, MA	1484	U
Sunbelt Glass, Inc; Tulsa, OK	1453	U
Tempglass, Inc; Perrysburg, OH	1039	U
Tempglass Eastern, Inc; Norcross, GA	979	U
TRACO (Three Rivers Alum.); Warrendale, PA	1308	U
Viracon, Inc; Owatonna, MN	1476	U
<b>5/32 inch tempered transparent glass</b>		
AFG Industries, Inc; Greenland, TN	955	U
AFG Industries, Inc; Kingsport, TN	949	U
Ardco, Inc; Chicago, IL	1323	U
Chamberlain; Malvern, AR	1376	U
Downey Glass Co.; Downey, CA	1002	U
Elgin Precision Glass Co Inc; Elgin, IL	1370	U
Ford Glass LTD; Ontario, Canada	1486	U
Fulton Glass Industries, Inc; Red Oak, GA	1123	U
Gemtron Corporation; Sweetwater, TN	1332	U
General Glass Corporation; Denver, CO	1180	U
Geneva Glass Industries; Geneva, IL	1502	U
Guardian Industries Corp; Carleton, MI	934	U

<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
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**TEMPERED TRANSPARENT GLASS - continued**  
**5/32 inch tempered transparent glass - continued**

Guardian Industries Corp; Corsicana, TX	1249	U
Guardian Industries Corp; Kingsburg, CA	969	U
Hamilton Glass Products, Inc; Vincennes, IN	1385	U
Hankuk Glass Industry, LTD; Seoul, Korea	1479	U
Hordis Brothers, Inc.; Warrenton, MO	1380	U
Howe-Martz Glass Company; Detroit, MI	1265	U
O & W Glass Industries, Inc; Everett, WA	1466	U
Ohio Plate Glass Company; Lewisburg, OH	1452	U
PPG Industries, Inc; Carlisle, PA	675	U
PPG Industries, Inc; Fresno, CA	676	U
PPG Industries, Inc; Wichita Falls, TX	1111	U
Sunglass Products, Inc.; Claremore, OK	1361	U
Tempered Glass, Inc; Austell, GA	1474	U
Tempglass Eastern, Inc; Norcross, GA	1259	U

**.169 inch tempered transparent glass**

Gemtron Corporation; Sweetwater, TN	1426	U
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**3/16 inch tempered transparent glass**

ACI Glass Products, Inc; Santa Fe Springs, CA	1157	U
AFG Industries, Inc; Greenland, TN	220	U
AFG Industries, Inc; Kingsport, TN	28	U
American Flat Glass Distrib; Fall River, MA	1519	U
American Flat Glass Distrib; Marietta, GA	1230	U
Anglass Industries, Inc; San Fernando, CA	999	U
Arch Tempered Glass Products; Orlando, FL	1527	U
Ardco, Inc; Chicago, IL	1042	U
Chamberlain; Malvern, AR	1377	U
Downey Glass Co.; Downey, CA	606	U
Downey Glass Co.; Los Angeles, CA	630	U
Elgin Precision Glass Co Inc; Elgin, IL	1371	U
Empire Glass, Inc; Bronx, NY	1398	U
Flex-Temp, Inc; Irving, TX	1437	U
Ford Glass LTD; Ontario, Canada	1487	U
Fulton Glass Industries, Inc; Red Oak, GA	1124	U
Gateway Industries; Rogers, AR	1356	U
Gemtron Corporation; Sweetwater, TN	1201	U
General Glass Corporation; Denver, CO	1181	U
Geneva Glass Industries; Geneva, IL	1500	U
The Glass Factory, Inc.; Ronkonkoma, NY	1459	U
Glasstemp, Inc.; Bensenville, IL	1381	U
Guardian Industries Corp; Carleton, MI	631	U
Guardian Industries Corp; Corsicana, TX	1250	U
Guardian Industries Corp; Fort Lauderdale, FL	633	U
Guardian Industries Corp; Kingsburg, CA	970	U
Guardian Industries Corp; Webster, MA	1216	U
Hamilton Glass Products, Inc; Vincennes, IN	1200	U
Hankuk Glass Industry, LTD; Seoul, Korea	1480	U
Havlin Witkin Corporation; Santa Clara, CA	1494	U
Hehr Glass Company; Newton, KS	1493	U
Hehr International, Inc; Chesaning, MI	1510	32" by 60"
Hordis Brothers, Inc.; Warrenton, MO	1421	U
Howe-Martz Glass Company; Detroit, MI	1266	U
Insulpane, Inc; West Windsor, NY	1469	U
Nashville Tempered Glass Corp; Nashville, TN	1467	U
Ohio Plate Glass Company; Jefferson, TX	1286	U
Ohio Plate Glass Company; Lewisburg, OH	185	U
Perma*View Processed Glass; Clarksville, TN	1506	U
PPG Industries, Inc; Carlisle, PA	249	U
PPG Industries, Inc; Dallas, TX	400	U
PPG Industries, Inc; Ford City, PA	61	U
PPG Industries, Inc; Fresno, CA	64	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>3/16 inch tempered transparent glass - continued</b>		
PPG Industries, Inc; Hunt Valley, MD	454	U
PPG Industries, Inc; Miami, FL	195	U
PPG Industries, Inc; Wichita Falls, TX	1112	U
San Jacinto Glass Co; Houston, TX	1293	U
Shaw Glass Company, Inc; South Easton, MA	1034	U
Spectrum Glass Company; Clinton, NC	1073	U
Sunbelt Glass, Inc; Tulsa, OK	1454	U
Sunglass Products, Inc.; Claremore, OK	1362	U
Tempered Glass Corporation; Tampa, FL	1395	U
Tempered Glass, Inc; Austell, GA	320	U
Tempered Glass Int'l Inc; Union City, CA	1241	U
Tempglass, Inc; Perrysburg, OH	592	U
Tempglass Eastern, Inc; Norcross, GA	981	U
Tempglass Southern, Inc; Grand Prairie, TX	1219	U
Texas Tempered Glass Company; Houston, TX	1192	U
TRACO (Three Rivers Alum.); Warrendale, PA	1310	U
Viracon, Inc; Owatonna, MN	1403	U
Virginia Glass Products Corp; Martinsville, VA	12	U
<b>7/32 inch tempered transparent glass</b>		
Ford Glass LTD; Ontario, Canada	1488	U
<b>1/4 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	1535	U
AFG Industries, Inc; Greenland, TN	89	U
AFG Industries, Inc; Kingsport, TN	24	U
American Flat Glass Distrib; Fall River, MA	1520	U
American Flat Glass Distrib; Marietta, GA	1231	U
Anglass Industries, Inc; San Fernando, CA	1000	U
Arch Tempered Glass Products; Orlando, FL	1528	U
Ardco, Inc; Chicago, IL	1049	U
Chamberlain; Malvern, AR	1378	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1165	U
Downey Glass Co.; Downey, CA	609	U
Downey Glass Co.; Los Angeles, CA	514	U
Elgin Precision Glass Co Inc; Elgin, IL	1372	U
Empire Glass, Inc; Bronx, NY	1399	U
Falconer Glass Industries Inc; Falconer, NY	709	U
Flex-Temp, Inc; Irving, TX	390	U
Ford Glass LTD; Ontario, Canada	1489	U
Fulton Glass Industries, Inc; Red Oak, GA	1125	U
Gateway Industries; Rogers, AR	1357	U
Gemtron Corporation; Sweetwater, TN	1477	U
General Glass Corporation; Denver, CO	1182	U
Geneva Glass Industries; Geneva, IL	1501	U
The Glass Factory, Inc.; Ronkonkoma, NY	1460	U
Glass Tempering Service, Inc; Detroit, MI	1238	U
Glasstemp, Inc.; Bensenville, IL	1382	U
Guardian Industries Corp; Carleton, MI	131	U
Guardian Industries Corp; Corsicana, TX	1251	U
Guardian Industries Corp; Fort Lauderdale, FL	40	U
Guardian Industries Corp; Kingsburg, CA	971	U
Guardian Industries Corp; Webster, MA	662	U
Hamilton Glass Products, Inc; Vincennes, IN	57	U
Hankuk Glass Industry, LTD; Seoul, Korea	1413	U
Havlin Witkin Corporation; Santa Clara, CA	1496	U
Hehr Glass Company; Newton, KS	1516	U
Hehr International, Inc; Chesaning, MI	1517	U
Hordis Brothers, Inc.; Warrenton, MO	1448	U
Howe-Martz Glass Company; Detroit, MI	1268	U
Insulpane, Inc; West Windsor, NY	1470	U
Nashville Tempered Glass Corp; Nashville, TN	1417	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>1/4 inch tempered transparent glass - continued</b>		
Ohio Plate Glass Company; Jefferson, TX	1287	U
Ohio Plate Glass Company; Lewisburg, OH	186	U
PPG Industries, Inc; Carlisle, PA	382	U
PPG Industries, Inc; Dallas, TX	402	U
PPG Industries, Inc; Ford City, PA	70	U
PPG Industries, Inc; Hunt Valley, MD	455	U
PPG Industries, Inc; Miami, FL	194	U
PPG Industries, Inc; Wichita Falls, TX	1113	U
Saint Gobain; The Netherlands	1393	U
San Jacinto Glass Co; Houston, TX	1294	U
Shaw Glass Company, Inc; South Easton, MA	1035	U
Spectrum Glass Company; Clinton, NC	1074	U
Sunbelt Glass, Inc; Tulsa, OK	1455	U
Sunglass Products, Inc.; Claremore, OK	1363	U
Temp-Tech Industries, Inc; Chicago, IL	986	U
Tempered Glass Corporation; Tampa, FL	337	U
Tempered Glass, Inc; Austell, GA	321	U
Tempered Glass Int'l Inc; Union City, CA	1204	U
Tempglass, Inc; Perrysburg, OH	1420	U
Tempglass Eastern, Inc; Norcross, GA	982	U
Tempglass Southern, Inc; Grand Prairie, TX	1044	U
Texas Tempered Glass Company; Houston, TX	137	U
TRACO (Three Rivers Alum.); Warrendale, PA	1311	U
Viracon, Inc; Owatonna, MN	1404	U
Virginia Glass Products Corp; Martinsville, VA	14	U
<b>5/16 inch tempered transparent glass</b>		
Hankuk Glass Industry, LTD; Seoul, Korea	1481	U
Spectrum Glass Company; Clinton, NC	1075	U
<b>3/8 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	639	U
AFG Industries, Inc; Greenland, TN	90	U
American Flat Glass Distrib; Fall River, MA	1521	U
American Flat Glass Distrib; Marietta, GA	1232	U
Arch Tempered Glass Products; Orlando, FL	1529	U
Ashai Glass Company, LTD; Tokyo, Japan	1346	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1166	U
Downey Glass Co.; Los Angeles, CA	515	U
Empire Glass, Inc; Bronx, NY	1400	U
Falconer Glass Industries Inc; Falconer, NY	1280	U
Flex-Temp, Inc; Irving, TX	391	U
Ford Glass LTD; Ontario, Canada	1490	U
Fulton Glass Industries, Inc; Red Oak, GA	1126	U
Geneva Glass Industries; Geneva, IL	1503	U
Glasstemp, Inc.; Bensenville, IL	1383	U
Guardian Industries Corp; Corsicana, TX	1253	U
Guardian Industries Corp; Fort Lauderdale, FL	41	U
Guardian Industries Corp; Webster, MA	471	U
Hankuk Glass Industry, LTD; Seoul, Korea	1482	U
Havlin Witkin Corporation; Santa Clara, CA	1497	U
Howe-Martz Glass Company; Detroit, MI	1269	U
Insulpane, Inc; West Windsor, NY	1471	U
PPG Industries, Inc; Dallas, TX	1107	U
PPG Industries, Inc; Hunt Valley, MD	474	U
PPG Industries, Inc; Miami, FL	1067	U
San Jacinto Glass Co; Houston, TX	1295	U
Shaw Glass Company, Inc; South Easton, MA	1036	U
Spectrum Glass Company; Clinton, NC	1076	U
Sunbelt Glass, Inc; Tulsa, OK	1456	U
Sunglass Products, Inc.; Claremore, OK	1374	U
Tempered Glass Corporation; Tampa, FL	348	U



SGCC NO.MAX. SIZE  
CERTIFIED**TEMPERED TRANSPARENT GLASS - continued****3/8 inch tempered transparent glass - continued**

Tempered Glass, Inc; Austell, GA	322	U
Tempered Glass Int'l Inc; Union City, CA	482	U
Tempglass, Inc; Perrysburg, OH	594	U
Tempglass Eastern, Inc; Norcross, GA	1058	U
Tempglass Southern, Inc; Grand Prairie, TX	1045	U
Texas Tempered Glass Company; Houston, TX	1408	U
Viracon, Inc; Owatonna, MN	1508	U
Virginia Glass Products Corp; Martinsville, VA	93	U

**1/2 inch tempered transparent glass**

ACI Glass Products, Inc; Santa Fe Springs, CA	640	U
American Flat Glass Distrib; Fall River, MA	1522	U
American Flat Glass Distrib; Marietta, GA	1406	U
Arch Tempered Glass Products; Orlando, FL	1530	U
Bogardus Wilson Ltd.; Winnipeg, Manitoba, CANADA	1525	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1167	U
Downey Glass Co.; Los Angeles, CA	516	U
Empire Glass, Inc; Bronx, NY	1401	U
Falconer Glass Industries Inc; Falconer, NY	711	U
Flex-Temp, Inc; Irving, TX	392	U
Ford Glass LTD; Ontario, Canada	1491	U
Fulton Glass Industries, Inc; Red Oak, GA	1127	U
Geneva Glass Industries; Geneva, IL	1504	U
The Glass Factory, Inc.; Ronkonkoma, NY	1461	U
Glasstemp, Inc.; Bensenville, IL	1384	U
Guardian Industries Corp; Fort Lauderdale, FL	1004	U
Guardian Industries Corp; Webster, MA	1235	U
Hankuk Glass Industry, LTD; Seoul, Korea	1483	U
Havlin Witkin Corporation; Santa Clara, CA	1498	U
Howe-Martz Glass Company; Detroit, MI	1270	U
Insulpane, Inc; West Windsor, NY	1472	U
PPG Industries, Inc; Dallas, TX	1108	U
PPG Industries, Inc; Hunt Valley, MD	475	U
PPG Industries, Inc; Miami, FL	1336	U
San Jacinto Glass Co; Houston, TX	1296	U
Shaw Glass Company, Inc; South Easton, MA	1037	U
Spectrum Glass Company; Clinton, NC	1077	U
Sunbelt Glass, Inc; Tulsa, OK	1457	U
Tempered Glass Corporation; Tampa, FL	338	U
Tempered Glass, Inc; Austell, GA	323	U
Tempered Glass Int'l Inc; Union City, CA	483	U
Tempglass, Inc; Perrysburg, OH	595	U
Tempglass Eastern, Inc; Norcross, GA	1059	U
Tempglass Southern, Inc; Grand Prairie, TX	1046	U
Texas Tempered Glass Company; Houston, TX	669	U
Viracon, Inc; Owatonna, MN	1509	U
Virginia Glass Products Corp; Martinsville, VA	94	U

**5/8 inch tempered transparent glass**

Spectrum Glass Company; Clinton, NC	1078	U
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**3/4 inch tempered transparent glass**

Empire Glass, Inc; Bronx, NY	1402	U
Falconer Glass Industries Inc; Falconer, NY	712	U
PPG Industries, Inc; Dallas, TX	1225	U
PPG Industries, Inc; Hunt Valley, MD	952	U
Spectrum Glass Company; Clinton, NC	1079	U
Virginia Glass Products Corp; Martinsville, VA	95	U

**TEMPERED PATTERN GLASS****1/8 inch tempered pattern glass**

Arch Tempered Glass Products; Orlando, FL	1531	U
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	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED PATTERN GLASS - continued</b>		
<b>1/8 inch tempered pattern glass - continued</b>		
Hehr International, Inc; Chesaning, MI	1514	32" by 60"
<b>5/32 inch tempered pattern glass</b>		
American Flat Glass Distrib; Fall River, MA	1524	U
Arch Tempered Glass Products; Orlando, FL	1532	U
<b>3/16 inch tempered pattern glass</b>		
American Flat Glass Distrib; Fall River, MA	1523	U
Flex-Temp, Inc; Irving, TX	1537	U
<b>1/8 inch tempered pattern glass (shallow)</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	1226	U
AFG Industries, Inc; Greenland, TN	587	U
AFG Industries, Inc; Kingsport, TN	1414	U
Downey Glass Co.; Downey, CA	604	U
Gateway Industries; Rogers, AR	1358	U
Gemtron Corporation; Sweetwater, TN	1422	U
Guardian Industries Corp; Corsicana, TX	1463	U
Guardian Industries Corp; Kingsburg, CA	1303	U
<b>1/8 inch tempered pattern glass (medium)</b>		
Downey Glass Co.; Downey, CA	605	U
Ohio Plate Glass Company; Jefferson, TX	1388	U
Ohio Plate Glass Company; Lewisburg, OH	654	U
<b>5/32 inch tempered pattern glass (shallow)</b>		
American Flat Glass Distrib; Marietta, GA	1428	U
Gateway Industries; Rogers, AR	1359	U
Gemtron Corporation; Sweetwater, TN	1424	U
Gemtron Corporation; Sweetwater, TN	2000	U
Guardian Industries Corp; Corsicana, TX	1314	U
Hamilton Glass Products, Inc; Vincennes, IN	1386	U
Hehr Glass Company; Newton, KS	1507	U
<b>5/32 inch tempered pattern glass (medium)</b>		
Guardian Industries Corp; Kingsburg, CA	1301	U
<b>3/16 inch tempered pattern glass (shallow)</b>		
AFG Industries, Inc; Greenland, TN	1139	U
AFG Industries, Inc; Kingsport, TN	1143	U
American Flat Glass Distrib; Marietta, GA	1415	U
Downey Glass Co.; Downey, CA	607	U
Downey Glass Co.; Los Angeles, CA	935	U
Falconer Glass Industries Inc; Falconer, NY	1330	U
Fulton Glass Industries, Inc; Red Oak, GA	1326	U
Glass Tempering Service, Inc; Detroit, MI	1340	34" by 72"
Guardian Industries Corp; Fort Lauderdale, FL	1318	U
Guardian Industries Corp; Kingsburg, CA	1304	U
Hamilton Glass Products, Inc; Vincennes, IN	1387	U
Howe-Martz Glass Company; Detroit, MI	1344	U
Ohio Plate Glass Company; Lewisburg, OH	188	U
PPG Industries, Inc; Miami, FL	1298	U
Shaw Glass Company, Inc; South Easton, MA	1299	U
Tempered Glass Corporation; Tampa, FL	1329	U
Tempglass Eastern, Inc; Norcross, GA	1338	U
Virginia Glass Products Corp; Martinsville, VA	1275	U
<b>3/16 inch tempered pattern glass (deep)</b>		
Gateway Industries; Rogers, AR	1394	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED PATTERN GLASS - continued</b>		
<b>3/16 inch tempered pattern glass (deep) - continued</b>		
Ohio Plate Glass Company; Lewisburg, OH	328	U
<b>7/32 inch tempered pattern glass (shallow)</b>		
Downey Glass Co.; Downey, CA	608	U
Downey Glass Co.; Los Angeles, CA	678	U
Guardian Industries Corp; Corsicana, TX	1464	U
Havlin Witkin Corporation; Santa Clara, CA	1495	U
Insulpane, Inc; West Windsor, NY	1473	U
Ohio Plate Glass Company; Lewisburg, OH	562	U
Tempered Glass Corporation; Tampa, FL	1118	U
<b>LAMINATED TRANSPARENT GLASS</b>		
<b>3/16 inch laminated transparent glass</b>		
Guardian Industries Corp; Upper Sandusky, OH	1515	U
Lear Siegler, Inc; Wichita, KS	1360	U
<b>7/32 inch laminated transparent glass</b>		
Falconer-Lewistown, Inc; Lewistown, PA	1282	U
Guardian Industries Corp; Upper Sandusky, OH	458	U
Lear Siegler, Inc; Wichita, KS	1173	U
Sumitec, Inc; Benton Harbor, MI	1441	U
<b>1/4 inch laminated transparent glass</b>		
Falconer-Lewistown, Inc; Lewistown, PA	1284	U
Guardian Industries Corp; Upper Sandusky, OH	487	U
<b>3/8 inch laminated transparent glass</b>		
Falconer-Lewistown, Inc; Lewistown, PA	1315	U
<b>1/2 inch laminated transparent glass</b>		
Falconer-Lewistown, Inc; Lewistown, PA	1316	U
<b>SAFETY PLASTIC SHEET</b>		
<b>.080 inch through 0.125 inch acrylic</b>		
Flex-O-Glass, Inc; Dixon, IN	118	U
<b>ORGANIC COATED GLASS</b>		
<b>1/8 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1511	U
<b>3/16 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1512	U
<b>1/4 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1513	U
<b>TEMPERED BENT GLASS</b>		
<b>3/8 inch Tempered Bent Glass</b>		
Glasstemp, Inc.; Bensenville, IL	1536	U

JULY 1, 1987

CERTIFIED PRODUCTS - BY PRODUCT TYPE

ANSI 23

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED BENT GLASS - continued 1/2 inch Tempered Bent Glass		
Glasstemp, Inc.; Bensenville, IL	1533	U

## PROCEDURAL GUIDE

## FOREWORD

Acceptance of a certified product containing safety glazing materials comes with the conviction that such certification assures a high level of safety and quality and that the integrity of the identifying mark or certification label is being reliably maintained by a competent certifying agency.

The provisions of American National Standard Z97.1 provide a sound technical basis for the required high level of safety. With the addition of independent administration plus periodic, routine sampling and product evaluation, a program of product certification is developed that provides an independent third party certification and testing program. The Certification Program described here is predicated upon the concept of independent and impartial administration of the certification procedures which are incorporated in the SGCC license agreement.

To insure administration of the Certification Program in a uniform and equitable manner, this Procedural Guide has been prepared for the information and guidance of the licensees.

It should be noted that the SGCC License Agreement is the governing document for operation of the Certification Program. This Procedural Guide, which is not an extension of that document, serves merely to describe the administrative procedure and routine operation of the Certification Program.

## GENERAL INFORMATION

## THE CERTIFICATION CONCEPT

The SGCC Certification Program is based on the conviction that no standard of safety or quality is good without the continuous adherence of the licensees to that standard.

To buyers, specifiers, code officials and users, the SGCC certification label offers the manufacturer's assurance that his safety glazing material has been produced in conformance to American National Standard Z97.1 covering safety glazing materials used in buildings.

Many state laws, municipal ordinances and building codes require that all glazing installed in certain pre-defined hazardous locations comply with the ANSI Standard.

## WHO CAN BECOME A LICENSEE?

Every manufacturer of safety glazing materials is eligible, on a voluntary basis, to participate.

## WHO CONDUCTS THE PROGRAM?

The Safety Glazing Certification Council, a non-profit corporation, is the sponsor of this certification program. SGCC supervises the certification program under which the administrator periodically checks and reports compliance of the manufacturers of products having the SGCC certification label with the requirements of ANSI Z97.1.

## ADMINISTRATION

ETL Testing Laboratories, Inc. (ETL), is the independent Administrator of the certification program. ETL maintains the SGCC office of certification and handles the routine day-to-day business. All transactions are done in the name of SGCC.

## HOW CAN YOU BECOME A LICENSEE?

The following must be accomplished before SGCC can certify an item safety glazing material:

- a) The manufacturer signs two copies of the SGCC License Agreement (including notarization of the Affidavit, Appendix A) and sends these to SGCC. SGCC will countersign both copies and return one to the manufacturer.
- b) The manufacturer directs the testing laboratory to send to SGCC one copy of a valid test report from an official SGCC recognized testing laboratory indicating full and complete compliance with the specifications, namely ANSI Z97.1. (This is the "initial" or "prototype" testing and the sample is furnished by the manufacturer directly to any one of the SGCC recognized independent commercial testing laboratories, which the manufacturer selects.)
- c) The manufacturer sends to SGCC the six-month certification fee for each item which is to be certified.



After receipt of all of the above items, SGCC sends to the licensee a notice of product certification which includes a SGCC certification number. This number **must** be incorporated into the permanent label to be affixed on each piece of certified safety glazing material. The certified item will then be listed in the next published certified products directory.

#### HOW THE CERTIFICATION PROGRAM WORKS

The American National Standards Institute sets safety standards and safety glazing materials **must** meet or exceed applicable ANSI standards before they can be certified by SGCC. Specifications for safety glazing materials used in buildings are developed and reviewed at least every five years by ANSI.

SGCC recognized independent testing laboratories conduct all tests. All laboratories, whose test reports are utilized by this certification program, shall be approved by the SGCC certification committee. Initial or prototype tests are performed at the testing laboratory selected by the licensee. Routine evaluation samples are tested by the testing laboratory selected by the administrator.

#### ADMINISTRATOR AUTHORIZES CERTIFICATION

As sole judge of compliance with applicable standards, the administrator authorizes a product which has been approved to be listed in the certified products directory.

Licensees label safety glazing material within the limits of the product size tested. If 34 by 76 inches is the initial or prototype test size, then certification is extended to all sizes and the label contains a letter U, designating such unlimited size. The letter L, contained within the label, denotes that certification is limited to the width and length of the initial or prototype test size.

#### PRODUCTS LISTED IN CERTIFIED PRODUCTS DIRECTORY

Approved products are listed in the certified products directory, which is published at least every six months. It is sent to door, sash and building products manufacturers, glazing contractors, home builders, architects, regulatory agencies and code-making groups, etc. Directory listings contain the licensee's name, plant location, product description and a copy of the actual label that is permanently marked upon each piece of certified safety glazing material.

The administrator samples certified glazing material from the licensee's inventory once every six months.

An approved testing laboratory determines compliance of these samples with the specifications. Tests are made either at the place of manufacture or at the laboratory selected by the administrator from the approved list. Results of each test are mailed promptly to the licensee by the administrator.

#### COMPLIANCE SAFEGUARDS

##### HOW IS COMPLIANCE ASSURED

Any certified product found in the course of routine sampling and evaluation not to be in compliance with the specifications, is subject to having certification removed. The licensee is given a 30-day grace period in which to demonstrate to the satisfaction of the administrator that his product is in compliance. If he does not, certification is **automatically terminated** at the end of the 30-day period.

##### CHALLENGING A CERTIFIED PRODUCT

Complaints of non-compliance from any source will be investigated promptly by SGCC upon receipt of the complaint in writing along with an appropriate surety deposit. A minimum surety deposit of \$1,000 will be required for each complaint of non-compliance. The surety deposit will be assessed at the rate of \$350 per man day **plus** the reasonable costs of travel and the maintenance entailed in resolving such incidents. Refunds of part or all of the surety deposit will be made when applicable. All costs involved will be paid from the complainant's surety deposit, **unless** the investigation proves non-compliance, in which case all costs will be borne by the licensee found to be in non-compliance.

##### WITHDRAWAL OF CERTIFIED PRODUCT

Any product which has been certified may be **voluntarily withdrawn** from the certification program by the licensee at any time.

**COSTS****WHAT DOES THE PROGRAM COST?**

The licensee pays all projected fees to SGCC on a six-month basis, in advance. A licensee is invoiced for each item that is certified and listed separately in the certified products Directory. The invoice will include the fees for future routine evaluation testing.

Initial certification for each item will be for a period of six months. However, the next invoice to a licensee will have the fees prorated to the nearest whole month in such a manner that participation in the certification program will be on a January 1 to July 1 and July 1 to January 1 basis.

**CERTIFICATION PROGRAM DOCUMENTS AND AGREEMENTS****LICENSE AGREEMENT**

This agreement, incorporating independent program administration and routine, periodic independent sampling and evaluation, governs the relationship between SGCC and the licensee.

Future amendments or revisions to the license agreement will be recommended by the SGCC certification committee and enacted by the SGCC board of directors.

**EFFECTIVE DATE, DURATION AND TERMINATION**

The license agreement becomes effective on the date of its execution; has an initial duration of six months (adjustable to a January 1 to July 1 or a July 1 to January 1 basis), and is automatically renewed for successive, additional periods of six months, unless either party gives notice at least sixty days prior to the date of expiration that cancellation is requested or unless revoked by SGCC for causes set forth in the document.

Upon proper execution and acceptance by SGCC the preissued certification number bond informs a licensee of the exact mark of an item to be certified in the future. Thus he can purchase the proper marking equipment before the item is actually certified. If the licensee marks this number upon production prior to actual certification the bond is forfeited to SGCC.

**ADMINISTRATIVE SERVICE AGREEMENT**

This agreement, entered into by SGCC and ETL Testing Laboratories, Inc., governs the relationship between SGCC and ETL, the independent administrator. In general, it provides that the administrator

- a) samples certified products routinely;
- b) has the right to witness any and all testing required by the program;
- c) reviews all test reports in order to determine compliance of the certified product with the specifications;
- d) inspects and approves all in-plant and test laboratory test facilities for use in this certification program (test laboratories are "recognized" or approved by the SGCC certification committee);
- e) publishes and mails the SGCC certified products directory on or about each January 1 and July 1;
- f) handles all routine clerical duties of SGCC with respect to certification matters;
- g) acts as SGCC treasurer, invoice licensees, maintaining a bank account and disbursing funds (fiscal reports are made to the SGCC certification committee);
- h) furnishes all testing except for prototype tests;
- i) attends all scheduled meetings of the SGCC certification committee and;
- j) in all of its actions acts in the name of SGCC.

**PROCEDURAL GUIDE**

This guide outlines program procedures in accordance with the provisions of the license agreement and the administrative service agreement, for the guidance of those concerned with the procedural details of the certification program. It covers the steps to be taken in any given procedural situation in the interest of equitable and uniform treatment of licensees and the preservation of the integrity of the certification program.

**CERTIFIED PRODUCTS DIRECTORY**

This directory is the one document and publication that is normally in the public's eye and contains a listing of the certified safety glazing materials of each licensee.

**CERTIFICATION LABEL**

This certification mark is permanently affixed to each piece of certified safety glazing material by the licensee. It contains a number that refers to the listing in the certified products directory. The listing then provides a complete product description including the company name, plant location, etc.

**PROGRAM RESPONSIBILITY**

The SGCC board of directors has overall responsibility for the well being and acceptance of the certification program by the industry, building officials and the public. It also bears corporate legal responsibility.

The SGCC certification committee has the responsibility for the general procedure and policy pertaining to operation of the certification program. As a part thereof, it:

- a) establishes certification "guidelines"
- b) determines the applicability of the specifications in a specific situation where a question is raised by a licensee or the administrator
- c) approves test laboratories
- d) determines which of the specifications are to be designated effective for the purposes of product certification and the date or dates on which they become effective
- e) recommends to the SGCC board of directors changes to be made in the license agreement

**COMMUNICATIONS**

In all matters concerning the administration and implementation of the SGCC certification program, correspondence may be directed to any of the following:

Mr. Richard L. Morrison, SGCC President  
c/o Ford Motor Company Glass Division  
300 Renaissance Center  
P.O. Box 43343  
Detroit, MI 48243  
Telephone: 313-446-4184

Mr. Henry A. Gorry, Chairman  
SGCC Certification Committee  
c/o Guardian Industries Corp.  
43043 West Nine Mile Road  
Northville, MI 48167  
Telephone: 313-349-6700

Mr. Claude F. Robb  
Administrative Manager  
ETL Testing Laboratories, Inc.  
Route 11 - Industrial Park  
Cortland, NY 13045  
Telephone: 607-753-6711

**CERTIFICATION GUIDELINES AND INTERPRETATIONS**

For guidance in certifying safety glazing materials the SGCC certification committee has adopted the following:

**GENERAL****G.1**

Participation in the certification program will be on a January 1 to July 1 and July 1 to January 1 basis. Charges will be prorated to the nearest whole month based on the date of approval of certification.

**G.2**

Tests for initial compliance of safety glazing materials to ANSI Z97.1-1984 will be accepted from any testing laboratory approved by the SGCC certification committee.

**G.3**

Paragraph (1) Section 5.1.3 of ANSI Z97.1-1984 is intended to apply to laminated, wired and organic coated glass only. Paragraph (2) is intended to apply to tempered glass only. Paragraph (3) is intended to apply to plastics only. Paragraph (4) is intended to apply to any safety glazing material.

**G.4**

For insulating glass units to be considered safety glazing material, each light in the construction must be of safety glazing material.

**G.5**

The SGCC item number when used as part of a permanent label designates the name of the licensee (participant) and also the location of the manufacturing plant since the certified products directory which lists the item number and pertinent data is published twice a year.

**G.6**

a) All test specimens, except for prototype samples, must be marked with the correct SGCC permanent label prior to testing in order to be considered a valid sample. The administrator shall construe the absence of a correct permanent label as a failure to comply with the specifications. In such cases of noncompliance, Sections a, c, and e of G.11 shall be followed.

b) The laboratory shall verify that the label has the correct SGCC number, designation of the ANSI standard, nominal thickness, and certified size designation (U or L).

c) The testing laboratory is to advise the administrator of any specimen that does not in fact bear the correct SGCC permanent label and will be instructed by the administrator not to test but hold the sample.

d) The administrator will inform the licensee of the situation and direct (by letter) the testing laboratory to commence testing no later than 30 days hence. Until that time the testing laboratory is instructed to make these specimens available to the licensee at their convenience (the specimens are to remain at the testing laboratory) in order that the licensee may point out or show them that in fact the SGCC permanent label is correct or agree that in fact the correct SGCC permanent label is not present. In cases of any dispute between the licensee and the testing laboratory the decision of the administrator shall be final. The licensee shall not mark specimens after receipt at the testing laboratory.

e) As of July 1, 1985 the SGCC permanent label must contain ANSI Z97.1-1984 in order to be considered a correct permanent label for purposes of Guideline G.6.

**G.7**

Safety glazing materials for which certification is requested for indoor use only shall be subjected to the provisions of section 5.1 (impact tests) and 5.4 (aging tests) of ANSI Z97.1-1984 irrespective of the composition or construction of the glazing material. Like products and materials produced in the same manner as samples submitted for test shall be legibly and permanently marked in one corner with the words "Indoor Use Only" and the SGCC identification number.

**G.8**

After initial compliance with a sample size as stated in Paragraph 4.3, testing of other sizes which represent the sizes manufactured may be allowed, provided however that all sizes produced up to the size provided by Paragraph 4.3, ANSI Z97.1-1984 are exposed to selection for testing.

**G.9**

Specimen sizes up to 34 inches by 77 inches shall be valid samples when independently obtained by the administrator for purposes of routine evaluation.

## G.10

In cases where the administrator samples and identifies specimens for routine evaluation of the licensee's premises or requests licensee's samples when none are available at the time of sampling:

a) The licensee be permitted 6 weeks in which to effect delivery of said specimens to the administrator's designated testing laboratory.

b) Failure to act as specified above shall be construed by the administrator as failure of the said specimens to comply with the specifications and the administrator shall act as provided for in license agreement A.6.

## G.11

In cases where a routine evaluation sample fails to comply with the specifications:

a) Written notice and an invoice shall be sent to the licensee by the administrator stating that within 30 days from the date of such notice the licensee must submit a retest sample to the testing laboratory selected by the licensee with the concurrence of the Administrator.

Certification shall be removed if the sample and payment are not received within the allotted 30 days or if the sample submitted fails to comply with the specifications.

b) Within 3 months the administrator shall obtain an additional random sample for evaluation (in addition to the routine evaluation sample obtained twice a year). The administrator shall be certain that this additional sample is of recent production.

c) At the option of the administrator, specimens submitted under a) above shall be either prototype size and pattern or identical to those previously sampled and of recent production.

d) Certification shall be removed if the additional random sample obtained in b) above fails to comply with the Specifications.

e) All costs related to G.11 are to be borne by the licensee.

## G.12

If a licensee who manufactures a certified product outside the 48 contiguous states feels that in a particular instance that he will be unable to act as provided for in paragraph a) of SGCC Guideline G.11, he should notify the administrator. The administrator will then contact the chairman of the certification committee for a decision as to what action is to be taken.

## G.13

In cases where a certified item is produced infrequently or in small quantities so as to make it difficult for the administrator to obtain routine evaluation samples, the licensee shall notify the administrator at least two weeks in advance of any production of such item.

## G.14

The administrator shall remove certification from all of any licensee's products for failure to pay any monies due to SGCC within 30 days of invoice date. (Reference license agreement A.2, A.12 and B.6.)

## G.15

In the situation where a licensee desires to recertify a product that previously had certification removed because of failure to comply with the specifications (label and thickness tolerances excepted), the product shall be routinely sampled four times during the first year. The costs involved shall be paid by the licensee.

## G.16

The nominal thickness designations in SGCC authorized permanent labels for safety glazing materials may be shown in metric units. The thickness will be expressed in millimeters, limited to two decimal places, and will have the suffix "mm."

## G.17

All safety glazing materials that are not symmetrical from surface to surface shall be impacted two specimens on one side and two specimens on the other side.

## G.18

Certified and permanently labeled safety glazing materials such as laminated glass, wired glass, rigid plastic or organic coated glass may be cut into smaller pieces by a distributor or installer after manufacture and it is not practical for each such smaller piece to bear a manufacturer's permanent label when finally installed in a building. When this is the case, then the distributor or installer shall apply a permanent label to each piece, which states his name and certifies that he cut the piece from material that was properly labeled in accordance with the requirements of SGCC.



For the purpose of this guideline, a permanent label is defined as one that will remain permanently legible and would be destroyed in attempts to remove it from the product.

#### G.19

The semi-annual invoicing date for certification fees shall be April 1 and October 1 of each year and the administrator is instructed to take those steps necessary to remove certification from licensees for failure of payment prior to closing date of the certified products directory.

#### G.20

For certification purposes a panel of glazing material composed of multiple components (such a leaded glass) may be tested and interpreted as a unit.

#### G.21

A preissued SGCC certification number shall be issued by the administrator upon receipt of a properly executed license agreement and a properly executed bond form in the amount of \$10,000. The preissued SGCC certification number, if not used by the licensee, will be terminated twelve months from the date of issue. The condition of the bond is such that if the licensee does not label any safety glazing material with the preissued certification number prior to formal certification then the bond shall be void.

#### G.22

In the case of wired glass, plastics and organic coated glass certification of a patterned product may be extended to cover other patterns provided:

- a) The nominal thickness of the proposed alternate and all aspects other than pattern are the same as the certified product.
- b) The administrator of the certification program is provided with a copy of a prototype test from an approved laboratory, showing satisfactory compliance with the impact requirements of ANSI Z97.1-1984 for each alternate pattern proposed.
- c) The certification committee is provided with a 6 by 6-inch sample of each proposed alternate for its record and file. This must be sent to the administrator of the certification program.

After admission under blanket certification covering patterned products, any such patterns available may be selected by the administrator for routine sampling and testing.

In the case where a routine evaluation sample covered under a blanket certification fails to comply with the specifications the situation requires that particular product be submitted for the retest sample required by Guideline G.11a and also that particular product be sampled by the administrator for the additional sample required by Guideline G.11b.

#### G.23

There may be instances when a production facility is temporarily inoperative. This could be caused by, but not limited to, equipment repair or replacement, labor difficulties, energy or material shortages or economic considerations. As a consequence, samples for routine testing may not be available for long periods. The licensee may desire to retain certification during the shutdown period. This shall be done as follows:

- a) Prior to or within 2 weeks after the shutdown, the licensee shall inform the SGCC administrator by certified mail.
- b) The SGCC administrator will immediately supply the licensee with test release bond forms for submission by the licensee. A separate bond shall be submitted for each certified product affected.
- c) Within 2 weeks after receipt of the bond forms, the licensee shall submit them to the SGCC administrator.
- d) During the period covered by the bond the licensee shall retain certification, contingent upon payment of normal certification fees and meeting all other licensee obligations. Bonds will terminate 90 days after acceptance by SGCC but may be renewed by the licensee any number of times. Renewal is an obligation of the licensee and requires all steps listed herein.
- e) Within one week after re-activation of the production facility the licensee shall 1) notify the SGCC administrator by certified mail and 2) submit samples from the first weeks production to an SGCC approved laboratory for testing. In cases where more than one certified product is produced with the same equipment, samples of each must be furnished for testing within the first months period during which they are submitted.

f) Failure of the licensee to comply with any of the preceding shall be the basis for removal of certification from the affected products.

#### G.24

When a licensee's production equipment will not produce a size of 34 by 76 inches and the licensee wishes to certify a) a size whose smaller dimension exceeds 34 inches, material shall be tested whose smaller dimension is 34 inches or b) a size whose larger dimension exceeds 76 inches, material shall be tested whose larger dimension is 76 inches.

#### G.25

When a licensee specifically and voluntarily desires to use a SGCC permanent label on their product that denotes compliance with ANSI Z97.1-1966, ANSI Z97.1-1972, ANSI Z97.1-1975 and ANSI Z97.1-1984 or combination thereof, that they notify SGCC in writing of the certified item that they desire to so mark. SGCC will, at the request of the licensee, conduct compliance tests to ANSI Z97.1-1966, ANSI Z97.1-1972, ANSI Z97.1-1975 and ANSI Z97.1-1984 or combination thereof. A single set of four test specimens will be impacted to determine impact test requirements of all standards. Upon successful completion of compliance tests the safety glazing materials are permanently labeled and listed in the SGCC certified products directory as having met the requirements of 1966, 1972, 1975 and 1984 versions or combination thereof the ANSI Z97.1 standard. Any costs involved shall be paid by the licensee.

#### G.26

Any label that can be removed intact shall not be considered permanent and is not acceptable to SGCC.

#### G.27

A licensee, by executing a supplementary license agreement, can elect to be in both 16 CFR 1201 and ANSI Z97.1-1984 programs under one SGCC number provided the licensee submits four specimens to be impact tested to ANSI Z97.1-1984 and one specimen to be impact tested to 16 CFR 1201 (all safety glazing materials that are not symmetrical from surface to surface, shall be impacted one specimen on one side and one specimen on the other side for 16 CFR 1201). If any one specimen of the composite sample will be considered to have failed to comply with both specifications.

#### G.28

The administrator shall construe noncompliance with thickness tolerances as a failure to comply with the specifications. In such cases of noncompliance, Sections a, c, and e of G.11 shall be followed.

#### G.29

For the purposes of certification, the thickness requirements of Federal Specification ASTM C1036-85 shall apply.

#### G.30

For certification purposes, the minimum thickness shall be 0.092 and the maximum thickness shall be 0.108 inches for 0.100 inch glass.

#### G.31

For certification purposes, the nominal thickness of single strength pattern glass shall be 0.094 inches and thickness tolerances shall be plus 0.047 inches and minus 0.015 inches.

#### G.32

One

### TEMPERED TRANSPARENT GLASS

#### .1

Certification of either flat glass or patterned glass will not cover the other except as noted in guideline T.2. (Flat glass designates ground and polished plate, float and sheet glass.)

#### .2

Polished plate glass and the rough glass blank from which it is produced will be considered to be of equal nominal thickness. Certification of tempered flat glass will therefore be interpreted as including tempered rough plate blank.

#### .3

Certification of regular tempered glass will also cover tinted, heat absorbing and coated glasses of the same nominal thickness. Glasses of the same nominal thickness with a ceramic material applied as a continuous or partial coating to one or more surfaces prior to tempering are also covered.

#### .4

In cases where certified glass is normally not available for sampling, the licensee may make an overrun of four lights of prototype size that are to be marked with the date of production when the item is in normal production and these will be accepted by the administrator if other samples are not available the administrator shall notify the licensee to submit prototype size samples to the administrator within six weeks.

## T.5

Certification of any nominal thickness of tempered safety plate, float or sheet glass will also cover the other two types. ANSI Z97.1 does not require the permanent label on tempered safety glass to specify which type of glass is used. Nor is it required that the test specimens be identified in this regard.

## T.6

Prototype test shall be conducted on bent specimens sampled from normal production run. The specimen size shall have a surface area of at least 50 percent of the maximum size for which certification is desired. Routine tests may be performed on bent specimens or flat specimens fabricated using the same tempering furnace. The test apparatus shall be modified to clamp the vertical straight edges and to support the concave side of the curved edges. Impact shall be on the convex surface.

**TEMPERED PATTERN GLASS**

## TP.1

For the purposes of certification, the nominal thickness of patterned, figured, or rough rolled glass are the common fractions found in ASTM C1036-85. The permanent label must contain this fraction or a metric or decimal dimension within the tolerance of this thickness as published in ASTM C1036-85.

The patterns in each thickness will be classified as to the ratio of minimum to maximum thickness as follows:

<u>Pattern depth class</u>	<u>Ratio</u>
Shallow pattern glass	0.90 or above
Medium pattern glass	0.80 through 0.89
Deep pattern glass	0.79 or below

Certification will be by nominal thickness and pattern depth class. Any pattern in a certified thickness and pattern depth class is certified.

New or unlisted patterns must be submitted to the pattern subcommittee for classification and file, prior to certification. After measurement, the new pattern will be assigned to a pattern depth class.

In the case of 5/32 inch tempered pattern glass refer to ASTM C1048-85 because this thickness is not included in ASTM C1036-85.

Certification of deep also covers medium and shallow patterns of the same nominal thickness.

Certification of medium also covers shallow patterns of the same nominal thickness.

## TP.2

The maximum thickness shall be recorded when measuring the thickness of pattern glass.

## TP.3

For tempered pattern glass, one specimen must be weighed and the weight of ten square inches determined from the weight, width and height of that specimen to use for test purposes.

## TP.4

For certification purposes, the nominal thickness of 210 tempered pattern glass shall be 0.210 inches and thickness tolerances shall be plus 0.031 inches and minus 0.016 inches.

## TP.5

When medium pattern glass is not available for routine sampling, the licensee submitted specimens must be a medium pattern (a shallow pattern is not acceptable).

## TP.6

When deep pattern glass is not available for routine sampling, the licensee submitted specimens must be a deep pattern (shallow or medium patterns are not acceptable).

**LAMINATED GLASS****L.1**

Certification of regular laminated glass will also cover tinted, heat absorbing and coated glasses, both flat and bent of the same nominal thickness.

**L.2**

In cases where certified laminated glass is normally not available for sampling the licensee may make an overrun (of four lights of prototype size that are to be marked with the date of production) when the item is in normal production and these will be accepted by the administrator if other samples are not available. Otherwise, when production samples are not available the administrator shall notify the licensee to submit prototype size samples to the administrator within six weeks.

**L.3**

Certification of 7/32 inch laminated glass also covers SS/DS and vice versa.

**L.4**

When a laminated glass is certified, other laminated glasses having the same thickness or thicknesses of glass and a greater thickness of plastic interlayer will be considered to be of equal nominal thickness and will be included in the certification.

**L.5**

Laminated safety glass need not be identified by type of base glass.

**L.6**

Thickness of the plastic interlayer shall be measured by the SGCC standard method.

**L.7**

For certification purposes the following thickness tolerances shall be used. Thickness tolerance shall apply only to the overall thickness. The plus tolerance shall be the sum of all the individual plus tolerances of each layer of the laminate. The minus tolerance shall be the sum of all of the individual minus tolerances of each layer of the laminate. Polyurethane interlayer shall have a thickness tolerance of plus or minus 0.015 inches.

The tolerance of the polyvinylbutyral (PVB) shall be based on the nominal thickness of the interlayer with a plus tolerance of 0.002 and a minus tolerance of 0.004 inches.

**L.8**

When a laminated annealed glass is certified, other laminated glasses having the same thickness or thicknesses of heat strengthened or tempered glass and the same or greater thickness of plastic interlayer of the same chemical composition will be considered to be included in the certification.

**L.9**

When laminated glass is not available for routine sampling, the licensee submitted specimens must contain the identical thickness plastic interlayer that was contained in the prototype specimens.

**WIRED GLASS****W.1**

Certification of one polished wired glass may be applied to other polished wired glasses provided:

- a) The glass thickness of the candidate glass is nominally equal to the thickness of the glass that is certified.
- b) The wire diameter of the candidate glass is at least as great as the wire diameter in the glass that is certified.
- c) The spacing of the wires in the candidate glass is no greater than the spacing of the wires in the glass that is certified.
- d) SGCC has been presented with a test report indicating compliance of the candidate glass with the impact test requirements of ANSI Z97.1-1984.

After admission under the blanket certification covering wired glasses all wired glasses so certified must be exposed to random sampling at each examination although only one will probably be selected for testing.

**PLASTICS - GENERAL****P.1**

Certification of one tint or color of rigid plastic will also cover other tints, colors, flat configurations or bent and formed configurations.

**P.2**

For certifying all plastics covering a range of thicknesses, prototype impact tests are required of the minimum thickness and also of the maximum thickness (except that 0.250 inch thickness would be tested if the maximum thickness exceeds 0.250 inches). Only one certification number will be issued and shall be marked upon all thicknesses. Routine evaluation samples are to be selected by the administrator from any of the certified thicknesses.

**P.3**

The following thickness tolerances shall be used for certification purposes:

Outdoor use plastic materials Class 1. Cast acrylic. (Including continuously cast sheet): As specified in Federal Specification LP-391, latest issue.

Outdoor use plastic materials Class 2. Extruded acrylic: As specified in Federal Specification LP-507, latest issue.

Outdoor use plastic materials Class 3. Extruded polycarbonate: As specified in Military Specification MIL-P-46144, latest issue.

Indoor use plastic materials Class 1: Plus or minus 10 percent of nominal thickness.

**P.4**

The maximum thickness shall be recorded when measuring the thickness of patterned plastics.

**P.5**

Certification of either smooth plastic or patterned plastic will not cover the other.

**PLASTICS - EXTERIOR USE****PE.1**

Sheet plastics for exterior use must comply with ANSI Z97.1-1984

**PE.2**

Certification of plastics for exterior use shall be permitted prior to completion of ANSI Z97.1-1984 weathering tests (paragraph 5.3) provided that a considered expert opinion states that the infrared spectrogram indicates that the plastic is an acrylic or UV inhibited polycarbonate of proven weatherability. Certification shall be removed if compliance with the weathering test is not demonstrated within six months of the certification date.

**PE.3**

For all plastics requiring UV weathering tests an infrared spectrogram shall be obtained of all prototype weathering specimens. An infrared spectrogram shall be obtained of all routine evaluation samples and shall be compared with that of the prototype in lieu of conducting weathering test. The spectral scan shall be made using a minimum film thickness of 0.002 inches or its equivalent.

**PE.4**

When initial Charpy unnotched specimens do not break, then notched specimens shall be used for both initial and exposed Charpy impact testing. The specimens shall be notched prior to UV exposure and the notched surface shall be exposed to the UV.

**PLASTICS - INDOOR USE ONLY****PI.1**

Sheet plastics used in indoor applications only, do not have to comply with paragraph 5.3 of ANSI Z97.1-1984 (UV Weathering) but must comply with paragraph 5.4.

**PI.2**

The permanent label authorized by SGCC must include "Indoor Use Only."

## PI.3

For all indoor plastics requiring aging tests, an infrared spectrogram shall be obtained of all prototype aging specimens. An infrared spectrogram shall be obtained of all routine re-evaluation samples and shall be compared with that of the prototype in lieu of conducting aging tests. The spectral scan shall be made using a minimum film thickness of 0.002 inches or its equivalent.

**LEADED PATTERNED ANNEALED GLASS**

## LG.1

Certification of one leaded patterned glass (annealed) may be extended to cover other patterns (on the glass surface) provided:

- a) The nominal thickness of the proposed alternate and all aspects other than pattern are the same as the certified product.
- b) The administrator of the certification program is provided with a copy of a prototype test from an approved laboratory, showing satisfactory compliance with the impact requirements of ANSI Z97.1-1984 for each alternate pattern proposed.
- c) The certification committee is provided with a 6 by 6 inch sample of each proposed alternate for its record and file. This must be sent to the administrator of the certification program.
- d) After admission under blanket certification covering leaded patterned glass (annealed), any such patterns available may be selected by the administrator for routine sampling.

## LG.2

Certification of one diamond shaped leaded patterned glass (annealed) may be extended to cover other sizes of diamonds provided:

- a) All aspects of the product except diamond size is the same as the certified product.
- b) The administrator of the certification program is provided with a copy of a prototype test from an approved laboratory, showing satisfactory compliance with the impact requirements of ANSI Z97.1-1984 for each alternate size diamond proposed.
- c) The certification committee is provided with a 6 by 6 inch or a proper and representative sample of each proposed alternate for its record and file. This must be sent to the administrator of the certification program.

After admission under blanket certification, any such size diamond available may be selected by the administrator for routine testing.

## LG.3

For leaded diamond patterned glass (annealed) the tolerance for diagonal came center dimensions shall be plus or minus 12 percent.

Prototype samples must have diagonal came center dimensions 10 percent greater than nominal. Diamond size listed in the certified products directory shall be nominal dimensions.

**ORGANIC COATED GLASS**

## AG.1

Thickness of the applied plastic coating shall be measured by the SGCC standard method.

## AG.2

The SGCC authorized permanent label, which complies with Guideline G.26 must be imprinted upon or applied to a surface of the plastic for all plastic coated annealed glasses.

Prototype test shall be conducted on bent specimens of the surface area at least 50 percent of the maximum size for which certification is desired. Routine tests may be conducted on flat or bent specimens. The test apparatus shall be modified to clamp the vertical straight edges and to support the concave side for the curved edges. Two specimens shall have organic coating on the concave surface and two on the convex surface. Impact shall be on the convex surface.

**ANSI Z97.1-1984 Safety Performance Specifications and Methods of Test  
for Safety Glazing Materials used in Buildings**

The purpose of ANSI Z97.1-1984 is to prescribe the functional properties of safety glazing materials so that they can be used in any place in buildings for which they possess the requisite characteristics. Intended to serve as a convenient reference for building officials, this important document is designed to provide a basis for standards that may be incorporated in federal, state and local regulations.

Copies of ANSI Z97.1-1984 may be obtained from:

American National Standards Institute  
1430 Broadway  
New York, NY 10018

\* \* \* \* \*

**SGCC LABEL REQUIREMENTS**

The SGCC certification label must be permanently marked on each piece of safety glazing material or else it is not covered by the SGCC certification program. The labels reproduced in this certified products directory are typical of those that you will find on each piece of safety glazing material.

The permanent label must contain the SGCC number, ANSI Z97.1-1984, the nominal thickness and the letter U or L indicating certified size.

For labeling purposes, a line of demarcation shall separate those standards covered by the SGCC number from any other standards the licensee wishes to reference.

For purposes of Guideline G.6 "SGCC-xxx/yyy" shall be the only correct designation other than "SGCC-xxx" and "SGCC-yyy" when an identical item is in both the ANSI and CPSC programs. (See examples below.)

"After having successfully passed the appropriate tests, like products and materials produced in the same manner as samples submitted per test shall be legibly and permanently marked in one corner with . . . the characters "ANSI Z97.1-1984 - INDOOR USE ONLY" and shall be marked also with the manufacturer's distinctive mark or designation." Quoted from ANSI Z97.1-1984.

"Organic-coated glass materials shall be permanently marked on the organic coating with a label, including the phrase, "GLAZE THIS SIDE IN" to indicate to the installer, inspector or user which side of the organic-coated glass should be exposed to the elements if there is a specific side that should be exposed." Quoted from ANSI Z97.1-1984.

The permanent label must contain identification of the plant in which the product was made and the name or trade mark of the licensee. (The SGCC number does this by reference to this certified products directory.)

The permanent label must be affixed to certified products only at the time and place of manufacture.

The permanent label must be affixed only to safety glazing materials of the licensee's own manufacture, which are certified in the SGCC program.

The permanent label must not be sold, transferred or otherwise disposed of in any manner other than being affixed to the licensee's certified production.

The permanent label must not be affixed to any product from which certification has been withdrawn or which is produced with a process basically different from the one used when certification was obtained.

**EXAMPLES:**

ANSI Z97.1-1984  
16 CFR 1201 II  
SGCC-123/691 1/4 U

ANSI Z97.1-1984 SGCC-123 1/4 U  
16 CFR 1201 II SGCC-691



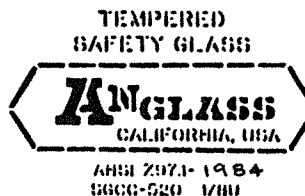
**ACI GLASS PRODUCTS, INC.**

9010 South Norwalk Boulevard  
Santa Fe Springs, CA 90670

**ANGLASS INDUSTRIES, INC.**

12364 Gladstone Avenue  
San Fernando, CA 91342

(ANSI ONLY)

**AFG INDUSTRIES, INC.**

P.O. Box 929  
Kingsport, TN 37662

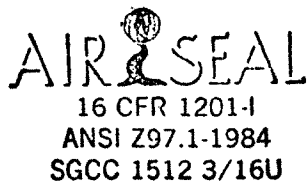
**ARCH TEMPERED GLASS PRODUCTS**

3320 Maggie Blvd.  
Orlando, FL 32811

(ANSI ONLY)

**AIR SEAL INSULATING GLASS UNITS CO**

522 Powell Street  
Gloucester City, NJ 08030

**ARDCO, INC**

12400 South Laramie Avenue  
Chicago, IL 60658

(ANSI ONLY)

**AMERICAN FLAT GLASS DISTRIBUTORS**

3200 Austell Rd.  
Marietta, GA 30060

**AFGD**

ANSI Z97.1-1984  
16CFR 1201-CII  
SGCC 1232 3/8" U

**ASHAI GLASS COMPANY, LTD.**

c/o Global Link, Inc.  
3401 Pacific Avenue  
Marina Del Ray, CA 90292

(ANSI ONLY)

**ASAHI**

Tempered Safety Glass  
ANSI Z97.1-1984  
SGCC-1346 3/8 U

**BOGARDUS WILSON LTD.**

121 Plymouth St  
Winnipeg, Manitoba R2X 2T3  
CANADA

**ELGIN PRECISION GLASS COMPANY, INC**

1200 Abbott Drive  
Elgin, IL 60120

EPG

ANSI Z97.1-1984  
16 CFR 1201 C11  
SGCC-1370 5/32U

**THE CHAMBERLAIN GROUP, INC.**

P.O. Box H  
Hot Springs, AR 71902

**CHAMBERLAIN**

TEMPERED SAFETY GLASS  
MALVERN, ARKANSAS

16CFR 1201 II

ANSI Z97.1-1984

SGCC-1377 3/16U

**EMPIRE GLASS, INC.**

608 East 133rd Street  
Bronx, NY 10454

**EMPIRE GLASS INC.****EGI - SAFGLAS****"ANSI Z 97.1 - 1984"****16 CFR 1201 II****SGCC - 1401 ½ - U****COLONIAL MIRROR AND GLASS CORP.**

142 19th Street  
Brooklyn, NY 11232

**colonial mirror & glass corp.**

Glas Steel Tempered Safety Glass

ANSI Z97.1-1984

16 CFR 1201-II SGCC-1167 1/2U

**FALCONER GLASS INDUSTRIES, INC.**

500 South Work Street  
Falconer, NY 14733

FALCONER GLASS IND., INC.

DURASAFE 1 4" U

TEMPERED SAFETY GLASS

ANSI Z97.1-1984

16 CFR 1201 C11 SGCC 70y

**DOWNEY GLASS COMPANY**

5631 Ferguson Drive  
Los Angeles, CA 90022

**ful-temp**

SGCC-603 .125U

ANSI-Z97.1 1984

16 CFR 1201 II

SGCC - 805

**FALCONER-LEWISTOWN, INC.**

One Belle Avenue  
Lewistown, PA 17044

**(ANSI ONLY)**

FALCONER

**Safetec**

LAMINATED

ANSI Z97.1-1984

SGCC #1284 1/4U

1-85

**FLEX-O-GLASS, INC.**

1100 North Cicero Avenue  
Chicago, IL 60651



FLEX-O-GLAZE™  
ACRYLIC SAFETY GLAZING  
15 CFR 1201 CII 100U  
ANSI Z97.1-84 SGCC-118

**GATEWAY INDUSTRIES**

1414 South First Street  
Rogers, AR 72756

GWI

TEMPERED

ANSI Z97.1-1984  
16CFR 1201-II  
SGCC-1355 1/8U  
DOT 272 AS2 M

**FLEX-TEMP, INC.**

2120 Vanco Drive  
Irving, TX 75061

**FLEX-TEMP**

Tempered Safety Glass  
ANSI Z97.1-1984  
SGCC-390 1/4 U

**GEMTRON CORPORATION**

New Highway 68  
P.O. Box 416  
Sweetwater, TN 37874

TEMPERED

16CFR 1201 CII  
ANSI Z97.1-1984  
3/16 U - SGCC-1201/1202  
GEMTRON 131 1985

**FORD GLASS LTD.**

Div. of Ford Motor Co.  
75 Doney Crescent  
Concord, Ontario L4A 1P6  
Canada



FORD TEMPERED  
SAFETY GLASS  
ANSI Z97.1-1984  
16CFR 1201,II  
SGCC 1486  
6L.....  
5/32 U

**GENERAL GLASS CORPORATION**

P.O. Box 390711  
Denver, CO 80238-1711

**GENERAL GLASS CORP.**

FLATTEMP™  
DENVER

3/16"U SGCC-1181  
ANSI Z97.1-1984 16CFR1201-I,II

**FULTON GLASS INDUSTRIES, INC.**

5225 Welcome All Road  
Red Oak, GA 30272

**FULTONTEMP**

SGCC H34 1/2" U  
16 CFR 1201-IL  
SGCC H27  
ANSI Z97.1 1984

**GENEVA GLASS INDUSTRIES**

2535 Kaneville Road  
Geneva, IL 60134

**THE GLASS FACTORY, INC.**  
5012 Expressway Drive, South  
Ronkonkoma, NY 11779



**HAMILTON GLASS PRODUCTS, INC.**  
2000 Chestnut Street  
P.O. Box 317  
Vincennes, IN 47591

**TEMPER-TUF**  
**HAMILTON GLASS**  
**VINCENNES IN**  
**ANSI Z97.1-1984**  
**1/8 U SGCC- 54**  
**16 CFR 1201 C II**

**GLASS TEMPERING SERVICE, INC.**  
14285 Wyoming Street  
Detroit, MI 48238

**GTs**

**SAFETY TEMPERED**  
**ANSI Z97.1-1984**  
-----  
**16 CFR 1201 II**  
**SGCC-1238 1/4 L**

**GLASSTEMP, INC.**  
1001 Foster Avenue  
Bensenville, IL 60106

**GLASSTEMP**  
**ANSI Z97.1-1984**  
**16 CFR 1201C II**  
**SGCC-1382**  
**1/4"-U 69**

**HANKUK GLASS INDUSTRY, LTD.**  
451 Yeo Ui Do-Dong  
Young Deung Po-Ku  
Seoul, KOREA 150

(ANSI ONLY)



**ANSI Z97.1-1984**  
**SGCC-1413 1/4U**

**HAVLIN WITKIN CORPORATION**  
Div. of ACI Glass Products  
750 Walsh Avenue  
Santa Clara, CA 95050



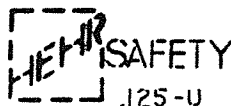
**TEMPERED SAFETY GLASS**  
**16 CFR 1201 CAT. II**  
**ANSI Z97.1-1984**  
**SGCC 1497 3/8 U**

**GUARDIAN INDUSTRIES CORP.**  
43043 West Nine Mile Road  
Northville, MI 48167

(ANSI ONLY)



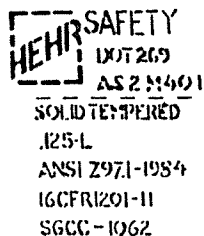
**HEHR GLASS COMPANY**  
1050 South Meridian  
P.O. Box 846  
Newton, KS 67114-0846



**SOLID TEMPERED**  
**ANSI-Z97.1-1984**  
**16CFR1201-II**  
**SGCC-1492**  
**11-86-7** ➡

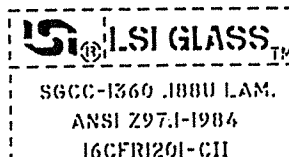
UNLESS OTHERWISE DESIGNATED, ABOVE LOGO INDICATES PARTICIPATION IN BOTH ANSI AND CPSC PROGRAMS.

**HEHR INTERNATIONAL, INC.**  
1103 West Pearl Street  
Chesaning, MI 48616



**LEAR SIEGLER, INC.**  
P.O. Box 1879  
Wichita, KS 67201

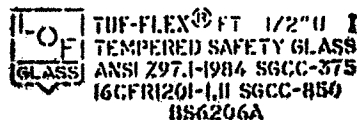
(ANSI ONLY)



**HORDIS BROTHERS, INC.**  
P.O. Box 368  
Warrenton, MO 63383

**HORDIS BROTHERS**  
Tempered Safety Glass  
ANSI Z97.1-1984  
16 CFR 1201 II  
SGCC-1379 1/8 U

**LOF GLASS**  
LIBBEY-OWENS-FORD COMPANY  
811 Madison Avenue  
P.O. Box 799  
Toledo, OH 43695



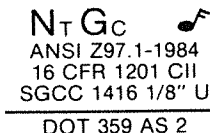
**HOWE-MARTZ GLASS COMPANY**  
14291 Meyers Road  
Detroit, MI 48227

**FLO H M TUF**  
TEMPERED SAFETY GLASS  
16 CFR 1201 CII  
ANSI Z97.1-1984 1/2U  
SGCC 1270

**LIN'S GLASS COMPANY, LTD.**  
c/o Simpson Door Company  
Technical Center  
900 Fourth Avenue  
Shelton, WA 98164

**INSULPANE, INC.**  
335 Temple Hill Road  
New Windsor, NY 12550

**NASHVILLE TEMPERED GLASS CORP.**  
1040 Cornelia Street  
Nashville, TN 37217



**O & W GLASS INDUSTRIES, INC.**  
1020 10th Street  
Everett, WA 98201

**SAINT GOBAIN**  
c/o Euroglass Corporation  
123 Main Street  
Suite 920  
White Plains, NY 10601

(ANSI ONLY)

**SAINT GOBAIN**  
Tempered Safety Glass  
ANSI Z97.1-1984  
SGCC-1393 1/4 U

**OHIO PLATE GLASS COMPANY**  
P.O. Box 671  
Lewisburg, OH 45338

(ANSI ONLY)

**TEMPERED**  
**SGCC 185**  
**OHIO PLATE**  
**3/16"-U 16CFR1201-II**  
**ANSI Z97.1-1984**

85 HL

**SAN JACINTO GLASS CO.**  
900 Broadway  
PO Box 5207  
Houston, TX 77262

**Starlite**

THE STARLITE COMPANY  
**ANSI Z97.1-1984**  
**16 CFR 1201 II**  
**SGCC 1292 1/8 U**  
SAN JACINTO GLASS CO.  
HOUSTON, TEXAS

**PERMA\*VIEW PROCESSED GLASS**  
157 Airport Road  
PO Box 2219  
Clarksville, TN 37042-2219

**SHAW GLASS COMPANY, INC.**  
55 Bristol Drive  
South Easton, MA 02375

**SOLAR TEMP.**  
**16 CFR 1201 11**

**ANSI Z 97.1- 1984**  
**1/4 U SGCC 1035**

**PPG INDUSTRIES, INC.**  
1000 RIDC Plaza  
P.O. Box 2811  
Pittsburgh, PA 15230

(ANSI ONLY)

**PPG HERCULITE K**  
TEMPERED SAFETY GLASS  
16CFR1201 CII  
ANSI Z-97.1-1984 1/4U  
SGCC-382 6 022585

**SPECTRUM GLASS COMPANY**  
East Railroad Street  
P.O. Box 408  
Clinton, NC 28328

**TUF-FLEX® FT 1/4"U**  
TEMPERED SAFETY GLASS  
ANSI Z97.1-1984 SGCC-1074  
16 CFR 1201-1, 11 SGCC-1081

**SPECTRUM**

**SUMITEC, INC.**

470 North Paw Paw Avenue  
PO Box 188  
Benton Harbor, MI 49022

(ANSI ONLY)

**SUMITEC INC.**  
**SGCC 1441**  
**7/32 U**  
**ANSI Z97.1**  
**1984**

**TEMPERED GLASS CORPORATION**

6900 Adamo Drive  
Tampa, FL 33619

**TEMPCO**  
**SGCC-337 .250 U**  
**SGCC-832**  
**16 CFR 1201-II**  
**ANSI Z97.1 1984**

**SUNBELT GLASS, INC.**

8531 East 44th Street  
Tulsa, OK 74145

**SUNTEMP® 1-87**  
**SAFETY TEMPERED**  
**ANSI Z97.1-1984**  
**16 CFR 1201 CII**  
**SGCC-1453 1/8 U**

**TEMPERED GLASS, INC.**

7160 Delta Circle  
Austell, GA 30001

- Tuf-flex Glass FT 1/4" U I •
- TEMPERED SAFETY GLASS •
- ANSI Z97.1-1984 16 CFR 1201-1&11
- SGCC-321 SGCC-863 •

**SUNGLAS PRODUCTS, INC.**

c/o Ford Motor Company Glass Div.  
300 Renaissance Center  
P.O. Box 43343  
Detroit, MI 48243



**FORD TEMPERED**  
**SAFETY GLASS**  
**ANSI Z97.1-1984**  
**SGCC 1361/1365**  
**16 CFR 1201, II**  
**4G . . . . .**  
**5/32 U**

**TEMPERED GLASS INTERNATIONAL, INC.**

700 Bradford Way  
Union City, CA 94587

- Tuf-flex Glass FT 1/4" U I •
- TEMPERED SAFETY GLASS •
- ANSI Z97.1-1984 16 CFR 1201-1&11
- SGCC-1204 SGCC-1205 •

**TEMP-TECH INDUSTRIES, INC.**

6166 South Sayre  
Chicago, IL 60638

**TEMPGLASS, INC.**

Ampoint  
291 M Street  
Perrysburg, OH 43551

**TEMPGLASS, INC.**

**16 CFR 1201 CII**  
**ANSI Z97.1 - 1984**  
**SGCC 1420**  
**1/4 - U (1)**

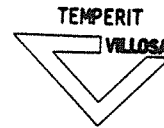
**TEMPGLASS EASTERN, INC.**

Blue Ridge Industrial Park  
P.O. Box 928  
Norcross, GA 30071

TEMPGLASS  
EASTERN  
ANSI Z97.1-1984  
16CFR 1201-II  
SGCC-979 1/4" U  
85

**VIDRIERAS DE LLODIO, S.A.****(CPSC ONLY)**

c/o Guardian Industries Corp.  
43043 West Nine Mile Road  
Northville, MI 48167



1/8 " U SGCC-1407  
tempered glass  
16 CFR 1201 II  
LLODIO-SPAIN

**TEMPGLASS SOUTHERN, INC.**

1101 Fountain Parkway  
Grand Prairie, TX 75050

TEMPGLASS SOUTHERN  
ANSI Z97.1 - 1984  
SGCC 1045 3/8" U  
16 CFR 1201 - II

**VIRACON, INC.**

800 Park Drive  
P.O. Box 248  
Owatonna, MN 55060

**VIRACON**

TEMPERED  
16 CFR 1201 II  
SGCC 1404 1/4" U  
ANSI Z97.1 1984  
1 85

**TEXAS TEMPERED GLASS COMPANY**

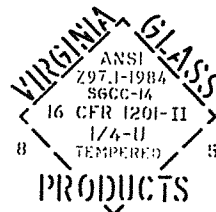
1331 West Belt Drive North  
Houston, TX 77024

**TEXAS TEMPERED**

Tempered Safety Glass  
ANSI Z97.1-1984  
16 CFR 1201 II  
SGCC-669 1/2 U

**VIRGINIA GLASS PRODUCTS CORP.**

P.O. Box 5431  
Martinsville, VA 24115

**TRACO (THREE RIVERS ALUM.)**

Cranberry Industrial Park  
P.O. Box 805  
Warrendale, PA 15095



TRACO VIEW-SAFE  
TEMPERED GLASS  
ANSI Z97.1-1984  
16 CFR 1201 II  
SGCC-1313 1/2U



**SGCC LABEL REQUIREMENTS**

The SGCC certification label must be permanently marked on each piece of safety glazing material or else it is not covered by the SGCC certification program. The labels reproduced in this certified products directory are typical of those that you will find on each piece of safety glazing material.

The label shall contain the correct SGCC number, the nominal thickness and reference to the 16 CFR 1201 standard in the following minimum form: 16 CFR 1201 and the category to which it pertains. Acceptable examples include: 16 CFR 1201 I and II, 16 CFR 1201 I or II, 16 CFR 1201 I & II, 16 CFR 1201 CAT I & II, 16 CFR 1201 C I & II, 16 CFR 1201 C I and 16 CFR 1201 C II.

For labeling purposes, a line of demarcation shall separate those standards covered by the SGCC number from any other standards the licensee wishes to reference.

For purposes of Guideline G.6 "SGCC-xxx/yyy" shall be the only correct designation other than "SGCC-xxx" and "SGCC-yyy" when an identical item is in both the ANSI and CPSC programs. (See examples below.)

"Any glazing material that for accelerated environmental durability tests meets only the requirements of 1201.4 (e)(ii)(c) entitled "Plastic (ndoor service)" shall bear the statement "INDOOR USE ONLY" as a part of the permanent label." Quoted from 16 CFR 1201.

"Organic-coated glass that has been tested for environmental exposure from one side only must bear a permanent label on the coating stating "GLAZE THIS SIDE IN" and shall bear in the central 50 percent of the surface in letters at least 1/4 inch high: "SEE PERMANENT LABEL FOR IMPORTANT MOUNTING INSTRUCTIONS." The latter message shall be attached to either side of the glazing by any means which shall ensure the message will remain in place until installation." Quoted from 16 CFR 1201.

The permanent label must contain identification of the plant in which the product was made and the name or trade mark of the licensee. (The SGCC number does this by reference to this certified products directory.)

The permanent label must be affixed to certified products only at the time and place of manufacture.

The permanent label must be affixed only to safety glazing materials of the licensee's own manufacture, which are certified in the SGCC program.

The permanent label must not be sold, transferred or otherwise disposed of in any manner other than being affixed to the licensee's certified production.

The permanent label must not be affixed to any product from which certification has been withdrawn or which is produced with a process basically different from the one used when certification was obtained.

**EXAMPLES:**

ANSI Z97.1-1984  
16 CFR 1201 II  
SGCC-123/691 1/4 U

ANSI Z97.1-1984 SGCC-123 1/4 U  
16 CFR 1201 II SGCC-691

### PROGRAM CONCEPT

The safety of the public is paramount. Manufacturers of safety glazing products, building code administrators and others responsible for the safety of the public, recognizing the need for a common standard for safety glazing materials, jointly established the Safety Glazing Certification Council (SGCC) in 1971.

The Safety Glazing Certification Council is a non-profit organization which has established and maintains a program to administer periodic testing to the 16 CFR 1201 standard, a recognized standard for safety glazing in buildings. This standard subjects glazing materials to a practical test to determine that if they are broken by human contact, they break in a manner that would minimize the likelihood of cutting or piercing injury. SGCC's responsibilities are threefold: to assure a periodic testing program is maintained; to approve and register the form of the manufacturer's label; and to withdraw the manufacturer's authority to use that label if its products do not meet 16 CFR 1201 standards.

Management and control of the program is vested in a board of directors, half representing industry and half representing public interest. The public interest representatives are empowered to veto any action regardless of the number present at a meeting. This insures against industry dominance of SGCC actions. The organization operates an independent third party certification and testing program.

The program uses independent testing laboratories under the supervision of a qualified administrator who is a professional engineer. He is unaffiliated with any manufacturer of safety glazing materials and is hired by and responsible to the Safety Glazing Certification Council. The manufacturer of the products listed herein has certified that the labeled materials comply with the safety characteristics established by 16 CFR 1201. The compliance of the manufacturer with the requirements of that standard is being checked periodically by an independent testing laboratory under the supervision of SGCC.

Every manufacturer of safety glazing material is eligible and encouraged to apply for certification. However, his products are not accepted and certified until an independent laboratory test indicates compliance with the standard. Once certified, each product is assigned a SGCC certification number to identify it and the factory at which it is made. Then, at least twice a year, SGCC independently selects samples during unannounced visits to the manufacturing plant or randomly from the market place to ensure continued adherence to the standard. Based on these evaluation reports SGCC authorizes continued use of the certification label and the product listing published in this directory.

The directory is divided into three basic listings: the first is by numerical sequence of certified product numbers listing the manufacturer holding that number; the second is of manufacturers listed alphabetically by plants and the approved products manufactured at those plants; the third is by products listing all manufacturers and their plants approved for each product. There is also an alphabetical listing by manufacturers illustrating a typical label of that manufacturer. The table of contents lists various procedural and administrative information, as well as information as to where officers and directors may be located.

Information from SGCC concerning a statement of procedures or copies of the minutes are available to manufacturers, public interest groups and individuals, upon request.

<u>SGCC</u> <u>NO.</u>	<u>SGCC</u> <u>NO.</u>	<u>SGCC</u> <u>NO.</u>
12 Virginia Glass Products Corp	832 Tempered Glass Corporation	1182 General Glass Corporation
14 Virginia Glass Products Corp	833 Tempered Glass Corporation	1192 Texas Tempered Glass Company
24 AFG Industries, Inc	834 Tempered Glass Corporation	1200 Hamilton Glass Products, Inc
28 AFG Industries, Inc	862 Tempered Glass, Inc	1202 Gemtron Corporation
54 Hamilton Glass Products, Inc	863 Tempered Glass, Inc	1205 Tempered Glass Int'l Inc
57 Hamilton Glass Products, Inc	865 Tempered Glass, Inc	1210 Tempered Glass Corporation
60 PPG Industries, Inc	866 Tempered Glass, Inc	1212 Fulton Glass Industries, Inc
61 PPG Industries, Inc	872 Flex-Temp, Inc	1219 Tempglass Southern, Inc
64 PPG Industries, Inc	873 Flex-Temp, Inc	1226 ACI Glass Products, Inc
70 PPG Industries, Inc	874 Flex-Temp, Inc	1230 American Flat Glass Distrib
89 AFG Industries, Inc	879 Tempered Glass Int'l Inc	1231 American Flat Glass Distrib
90 AFG Industries, Inc	881 Tempered Glass Int'l Inc	1232 American Flat Glass Distrib
93 Virginia Glass Products Corp	882 Tempered Glass Int'l Inc	1238 Glass Tempering Service, Inc
94 Virginia Glass Products Corp	949 AFG Industries, Inc	1259 Tempglass Eastern, Inc
95 Virginia Glass Products Corp	955 AFG Industries, Inc	1265 Howe-Martz Glass Company
118 Flex-O-Glass, Inc	979 Tempglass Eastern, Inc	1266 Howe-Martz Glass Company
137 Texas Tempered Glass Company	981 Tempglass Eastern, Inc	1268 Howe-Martz Glass Company
185 Ohio Plate Glass Company	982 Tempglass Eastern, Inc	1269 Howe-Martz Glass Company
186 Ohio Plate Glass Company	986 Temp-Tech Industries, Inc	1270 Howe-Martz Glass Company
194 PPG Industries, Inc	1003 Downey Glass Co.	1275 Virginia Glass Products Corp
195 PPG Industries, Inc	1034 Shaw Glass Company, Inc	1280 Falconer Glass Industries Inc
220 AFG Industries, Inc	1035 Shaw Glass Company, Inc	1281 Ohio Plate Glass Company
249 PPG Industries, Inc	1036 Shaw Glass Company, Inc	1286 Ohio Plate Glass Company
250 PPG Industries, Inc	1037 Shaw Glass Company, Inc	1287 Ohio Plate Glass Company
295 PPG Industries, Inc	1039 Tempglass, Inc	1292 San Jacinto Glass Co
400 PPG Industries, Inc	1044 Tempglass Southern, Inc	1293 San Jacinto Glass Co
402 PPG Industries, Inc	1045 Tempglass Southern, Inc	1294 San Jacinto Glass Co
454 PPG Industries, Inc	1046 Tempglass Southern, Inc	1295 San Jacinto Glass Co
455 PPG Industries, Inc	1050 Ohio Plate Glass Company	1296 San Jacinto Glass Co
586 Chamberlain	1058 Tempglass Eastern, Inc	1299 Shaw Glass Company, Inc
587 AFG Industries, Inc	1059 Tempglass Eastern, Inc	1308 TRACO (Three Rivers Alum.)
592 Tempglass, Inc	1062 Hehr International, Inc	1310 TRACO (Three Rivers Alum.)
594 Tempglass, Inc	1080 Spectrum Glass Company	1311 TRACO (Three Rivers Alum.)
595 Tempglass, Inc	1081 Spectrum Glass Company	1327 Fulton Glass Industries, Inc
598 AFG Industries, Inc	1082 Spectrum Glass Company	1329 Tempered Glass Corporation
639 ACI Glass Products, Inc	1083 Spectrum Glass Company	1330 Falconer Glass Industries Inc
640 ACI Glass Products, Inc	1084 Spectrum Glass Company	1331 Vidrierias De Llodio, S.A.
669 Texas Tempered Glass Company	1085 Spectrum Glass Company	1333 Gemtron Corporation
675 PPG Industries, Inc	1086 Spectrum Glass Company	1335 Gemtron Corporation
676 PPG Industries, Inc	1110 PPG Industries, Inc	1338 Tempglass Eastern, Inc
709 Falconer Glass Industries Inc	1111 PPG Industries, Inc	1340 Glass Tempering Service, Inc
711 Falconer Glass Industries Inc	1112 PPG Industries, Inc	1344 Howe-Martz Glass Company
712 Falconer Glass Industries Inc	1114 Downey Glass Co.	1355 Gateway Industries
805 Downey Glass Co.	1130 Fulton Glass Industries, Inc	1356 Gateway Industries
806 Downey Glass Co.	1131 Fulton Glass Industries, Inc	1357 Gateway Industries
807 Downey Glass Co.	1132 Fulton Glass Industries, Inc	1358 Gateway Industries
808 Downey Glass Co.	1134 Fulton Glass Industries, Inc	1359 Gateway Industries
809 Downey Glass Co.	1139 AFG Industries, Inc	1360 Lear Siegler, Inc
810 Downey Glass Co.	1143 AFG Industries, Inc	1365 Sunglass Products, Inc.
811 Downey Glass Co.	1157 ACI Glass Products, Inc	1366 Sunglass Products, Inc.
812 Downey Glass Co.	1165 Colonial Mirror & Glass Corp	1367 Sunglass Products, Inc.
813 Downey Glass Co.	1166 Colonial Mirror & Glass Corp	1369 Elgin Precision Glass Co Inc
814 Downey Glass Co.	1167 Colonial Mirror & Glass Corp	1370 Elgin Precision Glass Co Inc
815 Downey Glass Co.	1180 General Glass Corporation	1371 Elgin Precision Glass Co Inc
817 Downey Glass Co.	1181 General Glass Corporation	1372 Elgin Precision Glass Co Inc

<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
1375 Sunglass Products, Inc.	1429 O & W Glass Industries, Inc	1495 Havlin Witkin Corporation
1376 Chamberlain	1436 AFG Industries, Inc	1496 Havlin Witkin Corporation
1377 Chamberlain	1438 Flex-Temp, Inc	1497 Havlin Witkin Corporation
1378 Chamberlain	1445 Vidrierias De Llodio, S.A.	1498 Havlin Witkin Corporation
1379 Hordis Brothers, Inc.	1448 Hordis Brothers, Inc.	1499 Geneva Glass Industries
1380 Hordis Brothers, Inc.	1452 Ohio Plate Glass Company	1500 Geneva Glass Industries
1381 Glasstemp, Inc.	1453 Sunbelt Glass, Inc	1501 Geneva Glass Industries
1382 Glasstemp, Inc.	1454 Sunbelt Glass, Inc	1502 Geneva Glass Industries
1383 Glasstemp, Inc.	1455 Sunbelt Glass, Inc	1503 Geneva Glass Industries
1384 Glasstemp, Inc.	1456 Sunbelt Glass, Inc	1504 Geneva Glass Industries
1385 Hamilton Glass Products, Inc	1457 Sunbelt Glass, Inc	1505 Perma*View Processed Glass
1386 Hamilton Glass Products, Inc	1458 The Glass Factory, Inc.	1506 Perma*View Processed Glass
1387 Hamilton Glass Products, Inc	1459 The Glass Factory, Inc.	1507 Hehr Glass Company
1389 Glass Tempering Service, Inc	1460 The Glass Factory, Inc.	1508 Viracon, Inc
1390 AFG Industries, Inc	1461 The Glass Factory, Inc.	1509 Viracon, Inc
1394 Gateway Industries	1465 Lin's Glass Company, Ltd	1510 Hehr International, Inc
1396 Tempered Glass Corporation	1466 O & W Glass Industries, Inc	1511 Air Seal Insul Glass Units Co
1397 Empire Glass, Inc	1467 Nashville Tempered Glass Corp	1512 Air Seal Insul Glass Units Co
1398 Empire Glass, Inc	1468 Insulpane, Inc	1513 Air Seal Insul Glass Units Co
1399 Empire Glass, Inc	1469 Insulpane, Inc	1514 Hehr International, Inc
1400 Empire Glass, Inc	1470 Insulpane, Inc	1516 Hehr Glass Company
1401 Empire Glass, Inc	1471 Insulpane, Inc	1517 Hehr International, Inc
1402 Empire Glass, Inc	1472 Insulpane, Inc	1518 American Flat Glass Distrib
1403 Viracon, Inc	1473 Insulpane, Inc	1519 American Flat Glass Distrib
1404 Viracon, Inc	1475 Tempered Glass, Inc	1520 American Flat Glass Distrib
1405 American Flat Glass Distrib	1476 Viracon, Inc	1521 American Flat Glass Distrib
1406 American Flat Glass Distrib	1478 Gemtron Corporation	1522 American Flat Glass Distrib
1408 Texas Tempered Glass Company	1484 Shaw Glass Company, Inc	1523 American Flat Glass Distrib
1414 AFG Industries, Inc	1485 Ford Glass Ltd	1524 American Flat Glass Distrib
1415 American Flat Glass Distrib	1486 Ford Glass Ltd	1525 Bogardus Wilson Ltd.
1416 Nashville Tempered Glass Corp	1487 Ford Glass Ltd	1533 Glasstemp, Inc.
1417 Nashville Tempered Glass Corp	1488 Ford Glass Ltd	1534 Glasstemp, Inc.
1420 Tempglass, Inc	1489 Ford Glass Ltd	1535 ACI Glass Products, Inc
1421 Hordis Brothers, Inc.	1490 Ford Glass Ltd	1536 Glasstemp, Inc.
1423 Gemtron Corporation	1491 Ford Glass Ltd	1538 Flex-Temp, Inc
1425 Gemtron Corporation	1492 Hehr Glass Company	2001 Gemtron Corporation
1427 Gemtron Corporation	1493 Hehr Glass Company	
1428 American Flat Glass Distrib	1494 Havlin Witkin Corporation	

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
ACI GLASS PRODUCTS, INC.; SANTA FE SPRINGS, CA					DOWNEY GLASS COMPANY; DOWNEY, CA (CON'T)				
1157	3/16	( 5.0)	TTG	U	806	3/16	( 5.0)	TTG	U
1535	1/4	( 6.0)	TTG	U	807	1/4	( 6.0)	TTG	U
639	3/8	(10.0)	TTG	U	808	1/8	( 3.2)	TPG(S)	U
640	1/2	(12.0)	TTG	U	810	3/16	( 4.8)	TPG(S)	U
1226	1/8	( 3.2)	TPG(S)	U	811	7/32	( 5.6)	TPG(S)	U
AFG INDUSTRIES, INC.; BRIDGEPORT, WV					809	1/8	( 3.2)	TPG(M)	U
1436	1/8	( 3.0)	TTG	U	DOWNEY GLASS COMPANY; LOS ANGELES, CA				
AFG INDUSTRIES, INC.; GREENLAND, TN					812	3/16	( 5.0)	TTG	U
598	1/8	( 3.0)	TTG	U	813	1/4	( 6.0)	TTG	U
955	5/32	( 4.0)	TTG	U	814	3/8	(10.0)	TTG	U
220	3/16	( 5.0)	TTG	U	815	1/2	(12.0)	TTG	U
89	1/4	( 6.0)	TTG	U	1114	3/16	( 4.8)	TPG(S)	U
90	3/8	(10.0)	TTG	U	817	7/32	( 5.6)	TPG(S)	U
587	1/8	( 3.2)	TPG(S)	U	ELGIN PRECISION GLASS COMPANY, INC; ELGIN, IL				
1139	3/16	( 4.8)	TPG(S)	U	1369	1/8	( 3.0)	TTG	U
AFG INDUSTRIES, INC.; KINGSFORD, TN					1370	5/32	( 4.0)	TTG	U
1390	1/8	( 3.0)	TTG	U	1371	3/16	( 5.0)	TTG	U
949	5/32	( 4.0)	TTG	U	1372	1/4	( 6.0)	TTG	U
28	3/16	( 5.0)	TTG	U	EMPIRE GLASS, INC.; BRONX, NY				
24	1/4	( 6.0)	TTG	U	1397	1/8	( 3.0)	TTG	U
1414	1/8	( 3.2)	TPG(S)	U	1398	3/16	( 5.0)	TTG	U
1143	3/16	( 4.8)	TPG(S)	U	1399	1/4	( 6.0)	TTG	U
AIR SEAL INSULATING GLASS UNITS CO; GLOUCESTER CITY, NJ					1400	3/8	(10.0)	TTG	U
1511	1/8	( 3.0)	OCG	U	1401	1/2	(12.0)	TTG	U
1512	3/16	( 5.0)	OCG	U	1402	3/4	(19.0)	TTG	U
1513	1/4	( 6.0)	OCG	U	FALCONER GLASS INDUSTRIES, INC.; FALCONER, NY				
AMERICAN FLAT GLASS DISTRIBUTORS; FALL RIVER, MA					709	1/4	( 6.0)	TTG	U
1518	1/8	( 3.0)	TTG	U	1280	3/8	(10.0)	TTG	U
1519	3/16	( 5.0)	TTG	U	711	1/2	(12.0)	TTG	U
1520	1/4	( 6.0)	TTG	U	712	3/4	(19.0)	TTG	U
1521	3/8	(10.0)	TTG	U	1330	3/16	( 4.8)	TPG(S)	U
1522	1/2	(12.0)	TTG	U	FLEX-O-GLASS, INC.; DIXON, IN				
1524	5/32	( 4.0)	TPG	U	118	0.080 inch through 0.125 inch smooth extruded acrylic			U
1523	3/16	( 4.8)	TPG	U	FLEX-TEMP, INC.; IRVING, TX				
AMERICAN FLAT GLASS DISTRIBUTORS; MARIETTA, GA					1438	3/16	( 5.0)	TTG	U
1405	1/8	( 3.0)	TTG	U	872	1/4	( 6.0)	TTG	U
1230	3/16	( 5.0)	TTG	U	873	3/8	(10.0)	TTG	U
1231	1/4	( 6.0)	TTG	U	874	1/2	(12.0)	TTG	U
1232	3/8	(10.0)	TTG	U	1538	3/16	( 4.8)	TPG	U
1406	1/2	(12.0)	TTG	U	FORD GLASS LTD.; ONTARIO, CANADA				
1428	5/32	( 4.0)	TPG(S)	U	1485	1/8	( 3.0)	TTG	U
1415	3/16	( 4.8)	TPG(S)	U	1486	5/32	( 4.0)	TTG	U
BOGARDUS WILSON LTD.; WINNIPEG, MANITOBA, CANADA					1487	3/16	( 5.0)	TTG	U
1525	1/2	(12.0)	TTG	U	1488	7/32	( 5.6)	TTG	U
THE CHAMBERLAIN GROUP, INC.; MALVERN, AR					1489	1/4	( 6.0)	TTG	U
586	1/8	( 3.0)	TTG	U	1490	3/8	(10.0)	TTG	U
1376	5/32	( 4.0)	TTG	U	1491	1/2	(12.0)	TTG	U
1377	3/16	( 5.0)	TTG	U	FULTON GLASS INDUSTRIES, INC.; RED OAK, GA				
1378	1/4	( 6.0)	TTG	U	1130	5/32	( 4.0)	TTG	U
COLONIAL MIRROR AND GLASS CORP.; BROOKLYN, NY					1131	3/16	( 5.0)	TTG	U
1165	1/4	( 6.0)	TTG	U	1132	1/4	( 6.0)	TTG	U
1166	3/8	(10.0)	TTG	U	1212	3/8	(10.0)	TTG	U
1167	1/2	(12.0)	TTG	U	1134	1/2	(12.0)	TTG	U
DOWNEY GLASS COMPANY; DOWNEY, CA					1327	3/16	( 4.8)	TPG(S)	U
805	1/8	( 3.0)	TTG	U	GATEWAY INDUSTRIES; ROGERS, AR				
1003	5/32	( 4.0)	TTG	U	1355	1/8	( 3.0)	TTG	U

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>GATEWAY INDUSTRIES; ROGERS, AR (CON'T)</b>					<b>HEHR GLASS COMPANY; NEWTON, KS (CON'T)</b>				
1356	3/16	( 5.0)	TTG	U	1507	5/32	( 4.0)	TPG(S)	U
1357	1/4	( 6.0)	TTG	U	<b>HEHR INTERNATIONAL, INC.; CHESANING, MI</b>				
1358	1/8	( 3.2)	TPG(S)	U	1062	1/8	( 3.0)	TTG	U
1359	5/32	( 4.0)	TPG(S)	U	1510	3/16	( 5.0)	TTG	32" by 60"
1394	3/16	( 4.8)	TPG(D)	U	1517	1/4	( 6.0)	TTG	U
<b>GEMTRON CORPORATION; SWEETWATER, TN</b>					1514	1/8	( 3.0)	TPG	32" by 60"
1335	1/8	( 3.0)	TTG	U	<b>HORDIS BROTHERS, INC.; WARRENTON, MO</b>				
1333	5/32	( 4.0)	TTG	U	1379	1/8	( 3.0)	TTG	U
1427	.169	( 4.3)	TTG	U	1380	5/32	( 4.0)	TTG	U
1202	3/16	( 5.0)	TTG	U	1421	3/16	( 5.0)	TTG	U
1478	1/4	( 6.0)	TTG	U	1448	1/4	( 6.0)	TTG	U
1423	1/8	( 3.0)	TPG(S)	U	<b>HOWE-MARTZ GLASS COMPANY; DETROIT, MI</b>				
1425	5/32	( 4.0)	TPG(S)	U	1265	5/32	( 4.0)	TTG	U
2001	5/32	( 4.0)	TPG(S)	U	1266	3/16	( 5.0)	TTG	U
<b>GENERAL GLASS CORPORATION; DENVER, CO</b>					1268	1/4	( 6.0)	TTG	U
1180	5/32	( 4.0)	TTG	U	1269	3/8	(10.0)	TTG	U
1181	3/16	( 5.0)	TTG	U	1270	1/2	(12.0)	TTG	U
1182	1/4	( 6.0)	TTG	U	1344	3/16	( 4.8)	TPG(S)	U
<b>GENEVA GLASS INDUSTRIES; GENEVA, IL</b>					<b>INSULPANE, INC.; WEST WINDSOR, NY</b>				
1499	1/8	( 3.0)	TTG	U	1468	1/8	( 3.0)	TTG	U
1502	5/32	( 4.0)	TTG	U	1469	3/16	( 5.0)	TTG	U
1500	3/16	( 5.0)	TTG	U	1470	1/4	( 6.0)	TTG	U
1501	1/4	( 6.0)	TTG	U	1471	3/8	(10.0)	TTG	U
1503	3/8	(10.0)	TTG	U	1472	1/2	(12.0)	TTG	U
1504	1/2	(12.0)	TTG	U	1473	7/32	( 5.6)	TPG(S)	U
<b>THE GLASS FACTORY, INC.; RONKONKOMA, NY</b>					<b>LEAR SIEGLER, INC.; WICHITA, KS</b>				
1458	1/8	( 3.0)	TTG	U	1360	3/16	( 5.0)	LTG( .030)	U
1459	3/16	( 5.0)	TTG	U	<b>LIN'S GLASS COMPANY, LTD.; TAIWAN, R.O.C.</b>				
1460	1/4	( 6.0)	TTG	U	1465	1/8	( 3.0)	TTG	20" by 36"
1461	1/2	(12.0)	TTG	U	<b>NASHVILLE TEMPERED GLASS CORP.; NASHVILLE, TN</b>				
<b>GLASS TEMPERING SERVICE, INC.; DETROIT, MI</b>					1416	1/8	( 3.0)	TTG	U
1389	1/8	( 3.0)	TTG	30" by 76"	1467	3/16	( 5.0)	TTG	U
1238	1/4	( 6.0)	TTG	U	1417	1/4	( 6.0)	TTG	U
1340	3/16	( 4.8)	TPG(S)	34" by 72"	<b>O &amp; W GLASS INDUSTRIES, INC.; EVERETT, WA</b>				
<b>GLASSTEMP, INC.; BENSENVILLE, IL</b>					1429	1/8	( 3.0)	TTG	U
1534	1/8	( 3.0)	TTG	U	1466	5/32	( 4.0)	TTG	U
1381	3/16	( 5.0)	TTG	U	<b>OHIO PLATE GLASS COMPANY; JEFFERSON, TX</b>				
1382	1/4	( 6.0)	TTG	U	1281	1/8	( 3.0)	TTG	U
1383	3/8	(10.0)	TTG	U	1286	3/16	( 5.0)	TTG	U
1384	1/2	(12.0)	TTG	U	1287	1/4	( 6.0)	TTG	U
1536	3/8	(10.0)	TBG	U	<b>OHIO PLATE GLASS COMPANY; LEWISBURG, OH</b>				
1533	1/2	(12.0)	TBG	U	1050	1/8	( 3.0)	TTG	U
<b>HAMILTON GLASS PRODUCTS, INC.; VINCENNES, IN</b>					1452	5/32	( 4.0)	TTG	U
54	1/8	( 3.0)	TTG	U	185	3/16	( 5.0)	TTG	U
1385	5/32	( 4.0)	TTG	U	186	1/4	( 6.0)	TTG	U
1200	3/16	( 5.0)	TTG	U	<b>PERMA*VIEW PROCESSED GLASS; CLARKSVILLE, TN</b>				
57	1/4	( 6.0)	TTG	U	1505	1/8	( 3.0)	TTG	U
1386	5/32	( 4.0)	TPG(S)	U	1506	3/16	( 5.0)	TTG	U
1387	3/16	( 4.8)	TPG(S)	U	<b>PPG INDUSTRIES, INC.; CARLISLE, PA</b>				
<b>HAVLIN WITKIN CORPORATION; SANTA CLARA, CA</b>					250	1/8	( 3.0)	TTG	U
1494	3/16	( 5.0)	TTG	U	675	5/32	( 4.0)	TTG	U
1496	1/4	( 6.0)	TTG	U	249	3/16	( 5.0)	TTG	U
1497	3/8	(10.0)	TTG	U	<b>PPG INDUSTRIES, INC.; CRESTLINE, OH</b>				
1498	1/2	(12.0)	TTG	U	60	1/8	( 3.0)	TTG	U
1495	7/32	( 5.6)	TPG(S)	U					
<b>HEHR GLASS COMPANY; NEWTON, KS</b>									
1492	1/8	( 3.0)	TTG	U					
1493	3/16	( 5.0)	TTG	U					
1516	1/4	( 6.0)	TTG	U					

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
<b>PPG INDUSTRIES, INC.; DALLAS, TX</b>					<b>TEMPERED GLASS CORPORATION; TAMPA, FL</b>				
400	3/16	( 5.0)	TTG	U	1396	3/16	( 5.0)	TTG	U
402	1/4	( 6.0)	TTG	U	832	1/4	( 6.0)	TTG	U
<b>PPG INDUSTRIES, INC.; FORD CITY, PA</b>					833	3/8	(10.0)	TTG	U
61	3/16	( 5.0)	TTG	U	834	1/2	(12.0)	TTG	U
70	1/4	( 6.0)	TTG	U	1329	3/16	( 4.8)	TPG(S)	U
<b>PPG INDUSTRIES, INC.; FRESNO, CA</b>					1210	7/32	( 5.6)	TPG(S)	U
295	1/8	( 3.0)	TTG	U	<b>TEMPERED GLASS, INC.; AUSTELL, GA</b>				
676	5/32	( 4.0)	TTG	U	1475	5/32	( 4.0)	TTG	U
64	3/16	( 5.0)	TTG	U	862	3/16	( 5.0)	TTG	U
<b>PPG INDUSTRIES, INC.; HUNT VALLEY, MD</b>					863	1/4	( 6.0)	TTG	U
454	3/16	( 5.0)	TTG	U	865	3/8	(10.0)	TTG	U
455	1/4	( 6.0)	TTG	U	866	1/2	(12.0)	TTG	U
<b>PPG INDUSTRIES, INC.; MIAMI, FL</b>					<b>TEMPERED GLASS INTERNATIONAL, INC.; UNION CITY, CA</b>				
195	3/16	( 5.0)	TTG	U	879	3/16	( 5.0)	TTG	U
194	1/4	( 6.0)	TTG	U	1205	1/4	( 6.0)	TTG	U
<b>PPG INDUSTRIES, INC.; WICHITA FALLS, TX</b>					881	3/8	(10.0)	TTG	U
1110	1/8	( 3.0)	TTG	U	882	1/2	(12.0)	TTG	U
1111	5/32	( 4.0)	TTG	U	<b>TEMPGLASS, INC.; PERRYSBURG, OH</b>				
1112	3/16	( 5.0)	TTG	U	1039	1/8	( 3.0)	TTG	U
<b>SAN JACINTO GLASS CO.; HOUSTON, TX</b>					592	3/16	( 5.0)	TTG	U
1292	1/8	( 3.0)	TTG	U	1420	1/4	( 6.0)	TTG	U
1293	3/16	( 5.0)	TTG	U	594	3/8	(10.0)	TTG	U
1294	1/4	( 6.0)	TTG	U	595	1/2	(12.0)	TTG	U
1295	3/8	(10.0)	TTG	U	<b>TEMPGLASS EASTERN, INC.; NORCROSS, GA</b>				
1296	1/2	(12.0)	TTG	U	979	1/8	( 3.0)	TTG	U
<b>SHAW GLASS COMPANY, INC.; SOUTH EASTON, MA</b>					1259	5/32	( 4.0)	TTG	U
1484	1/8	( 3.0)	TTG	U	981	3/16	( 5.0)	TTG	U
1034	3/16	( 5.0)	TTG	U	982	1/4	( 6.0)	TTG	U
1035	1/4	( 6.0)	TTG	U	1058	3/8	(10.0)	TTG	U
1036	3/8	(10.0)	TTG	U	1059	1/2	(12.0)	TTG	U
1037	1/2	(12.0)	TTG	U	1338	3/16	( 4.8)	TPG(S)	U
1299	3/16	( 4.8)	TPG(S)	U	<b>TEMPGLASS SOUTHERN, INC.; GRAND PRAIRIE, TX</b>				
<b>SPECTRUM GLASS COMPANY; CLINTON, NC</b>					1219	3/16	( 5.0)	TTG	U
1080	3/16	( 5.0)	TTG	U	1044	1/4	( 6.0)	TTG	U
1081	1/4	( 6.0)	TTG	U	1045	3/8	(10.0)	TTG	U
1082	5/16	( 8.0)	TTG	U	1046	1/2	(12.0)	TTG	U
1083	3/8	(10.0)	TTG	U	<b>TEXAS TEMPERED GLASS COMPANY; HOUSTON, TX</b>				
1084	1/2	(12.0)	TTG	U	1192	3/16	( 5.0)	TTG	U
1085	5/8	(16.0)	TTG	U	137	1/4	( 6.0)	TTG	U
1086	3/4	(19.0)	TTG	U	1408	3/8	(10.0)	TTG	U
<b>SUNBELT GLASS, INC.; TULSA, OK</b>					669	1/2	(12.0)	TTG	U
1453	1/8	( 3.0)	TTG	U	<b>TRACO (THREE RIVERS ALUM.); WARRENDALE, PA</b>				
1454	3/16	( 5.0)	TTG	U	1308	1/8	( 3.0)	TTG	U
1455	1/4	( 6.0)	TTG	U	1310	3/16	( 5.0)	TTG	U
1456	3/8	(10.0)	TTG	U	1311	1/4	( 6.0)	TTG	U
1457	1/2	(12.0)	TTG	U	<b>VIDIERAIS DE LLODIO, S.A.; ALAVA, SPAIN</b>				
<b>SUNGLAS PRODUCTS, INC.; CLAREMORE, OK</b>					1445	3/16	( 5.0)	TTG	U
1365	5/32	( 4.0)	TTG	U	1331	5/32	( 4.0)	TPG(S)	U
1366	3/16	( 5.0)	TTG	U	<b>VIRACON, INC.; OWATONNA, MN</b>				
1367	1/4	( 6.0)	TTG	U	1476	1/8	( 3.0)	TTG	U
1375	3/8	(10.0)	TTG	U	1403	3/16	( 5.0)	TTG	U
<b>TEMP-TECH INDUSTRIES, INC.; CHICAGO, IL</b>					1404	1/4	( 6.0)	TTG	U
986	1/4	( 6.0)	TTG	U	1508	3/8	(10.0)	TTG	U
					1509	1/2	(12.0)	TTG	U
					<b>VIRGINIA GLASS PRODUCTS CORP.; MARTINSVILLE, VA</b>				
					12	3/16	( 5.0)	TTG	U
					14	1/4	( 6.0)	TTG	U

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	
VIRGINIA GLASS PRODUCTS CORP.; MARTINSVILLE, VA (CON'T)					
93	3/8	(10.0)	TTG	U	
94	1/2	(12.0)	TTG	U	
95	3/4	(19.0)	TTG	U	
1275	3/16	( 4.8)	TPG(S)	U	
CERTIFIED PRODUCTS KEY					
TTG = TEMPERED TRANSPARENT GLASS					
TPG = TEMPERED PATTERN GLASS					
TBG = TEMPERED BENT GLASS					
LTG = LAMINATED TRANSPARENT GLASS					
LPG = LAMINATED PATTERN GLASS					
OCG = ORGANIC COATED GLASS					
(S) = SHALLOW PATTERN					
(M) = MEDIUM PATTERN					
(D) = DEEP PATTERN					
U = UNLIMITED SIZE					



	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS</b>		
<b>1/8 inch tempered transparent glass</b>		
AFG Industries, Inc; Bridgeport, WV	1436	U
AFG Industries, Inc; Greenland, TN	598	U
AFG Industries, Inc; Kingsport, TN	1390	U
American Flat Glass Distrib; Fall River, MA	1518	U
American Flat Glass Distrib; Marietta, GA	1405	U
Chamberlain; Malvern, AR	586	U
Downey Glass Co.; Downey, CA	805	U
Elgin Precision Glass Co Inc; Elgin, IL	1369	U
Empire Glass, Inc; Bronx, NY	1397	U
Ford Glass LTD; Ontario, Canada	1485	U
Gateway Industries; Rogers, AR	1355	U
Gemtron Corporation; Sweetwater, TN	1335	U
Geneva Glass Industries; Geneva, IL	1499	U
The Glass Factory, Inc.; Ronkonkoma, NY	1458	U
Glass Tempering Service, Inc; Detroit, MI	1389	30" by 76"
Glasstemp, Inc.; Bensenville, IL	1534	U
Hamilton Glass Products, Inc; Vincennes, IN	54	U
Hehr Glass Company; Newton, KS	1492	U
Hehr International, Inc; Chesaning, MI	1062	U
Hordis Brothers, Inc.; Warrenton, MO	1379	U
Insulpane, Inc; West Windsor, NY	1468	U
Lin's Glass Company, LTD; Taiwan, R.O.C.	1465	20" by 36"
Nashville Tempered Glass Corp; Nashville, TN	1416	U
O & W Glass Industries, Inc; Everett, WA	1429	U
Ohio Plate Glass Company; Jefferson, TX	1281	U
Ohio Plate Glass Company; Lewisburg, OH	1050	U
Perma*View Processed Glass; Clarksville, TN	1505	U
PPG Industries, Inc; Carlisle, PA	250	U
PPG Industries, Inc; Crestline, OH	60	U
PPG Industries, Inc; Fresno, CA	295	U
PPG Industries, Inc; Wichita Falls, TX	1110	U
San Jacinto Glass Co; Houston, TX	1292	U
Shaw Glass Company, Inc; South Easton, MA	1484	U
Sunbelt Glass, Inc; Tulsa, OK	1453	U
Tempglass, Inc; Perrysburg, OH	1039	U
Tempglass Eastern, Inc; Norcross, GA	979	U
TRACO (Three Rivers Alum.); Warrendale, PA	1308	U
Viracon, Inc; Owatonna, MN	1476	U
<b>5/32 inch tempered transparent glass</b>		
AFG Industries, Inc; Greenland, TN	955	U
AFG Industries, Inc; Kingsport, TN	949	U
Chamberlain; Malvern, AR	1376	U
Downey Glass Co.; Downey, CA	1003	U
Elgin Precision Glass Co Inc; Elgin, IL	1370	U
Ford Glass LTD; Ontario, Canada	1486	U
Fulton Glass Industries, Inc; Red Oak, GA	1130	U
Gemtron Corporation; Sweetwater, TN	1333	U
General Glass Corporation; Denver, CO	1180	U
Geneva Glass Industries; Geneva, IL	1502	U
Hamilton Glass Products, Inc; Vincennes, IN	1385	U
Hordis Brothers, Inc.; Warrenton, MO	1380	U
Howe-Martz Glass Company; Detroit, MI	1265	U
O & W Glass Industries, Inc; Everett, WA	1466	U
Ohio Plate Glass Company; Lewisburg, OH	1452	U
PPG Industries, Inc; Carlisle, PA	675	U
PPG Industries, Inc; Fresno, CA	676	U
PPG Industries, Inc; Wichita Falls, TX	1111	U
Sunglass Products, Inc.; Claremore, OK	1365	U
Tempered Glass, Inc; Austell, GA	1475	U
Tempglass Eastern, Inc; Norcross, GA	1259	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>.169 inch tempered transparent glass</b>		
Gemtron Corporation; Sweetwater, TN	1427	U
<b>3/16 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	1157	U
AFG Industries, Inc; Greenland, TN	220	U
AFG Industries, Inc; Kingsport, TN	28	U
American Flat Glass Distrib; Fall River, MA	1519	U
American Flat Glass Distrib; Marietta, GA	1230	U
Chamberlain; Malvern, AR	1377	U
Downey Glass Co.; Downey, CA	806	U
Downey Glass Co.; Los Angeles, CA	812	U
Elgin Precision Glass Co Inc; Elgin, IL	1371	U
Empire Glass, Inc; Bronx, NY	1398	U
Flex-Temp, Inc; Irving, TX	1438	U
Ford Glass LTD; Ontario, Canada	1487	U
Fulton Glass Industries, Inc; Red Oak, GA	1131	U
Gateway Industries; Rogers, AR	1356	U
Gemtron Corporation; Sweetwater, TN	1202	U
General Glass Corporation; Denver, CO	1181	U
Geneva Glass Industries; Geneva, IL	1500	U
The Glass Factory, Inc.; Ronkonkoma, NY	1459	U
Glasstemp, Inc.; Bensenville, IL	1381	U
Hamilton Glass Products, Inc; Vincennes, IN	1200	U
Havlin Witkin Corporation; Santa Clara, CA	1494	U
Hehr Glass Company; Newton, KS	1493	U
Hehr International, Inc; Chesaning, MI	1510	32" by 60"
Hordis Brothers, Inc.; Warrenton, MO	1421	U
Howe-Martz Glass Company; Detroit, MI	1266	U
Insulpane, Inc; West Windsor, NY	1469	U
Nashville Tempered Glass Corp; Nashville, TN	1467	U
Ohio Plate Glass Company; Jefferson, TX	1286	U
Ohio Plate Glass Company; Lewisburg, OH	185	U
Perma*View Processed Glass; Clarksville, TN	1506	U
PPG Industries, Inc; Carlisle, PA	249	U
PPG Industries, Inc; Dallas, TX	400	U
PPG Industries, Inc; Ford City, PA	61	U
PPG Industries, Inc; Fresno, CA	64	U
PPG Industries, Inc; Hunt Valley, MD	454	U
PPG Industries, Inc; Miami, FL	195	U
PPG Industries, Inc; Wichita Falls, TX	1112	U
San Jacinto Glass Co; Houston, TX	1293	U
Shaw Glass Company, Inc; South Easton, MA	1034	U
Spectrum Glass Company; Clinton, NC	1080	U
Sunbelt Glass, Inc; Tulsa, OK	1454	U
Sunglass Products, Inc.; Claremore, OK	1366	U
Tempered Glass Corporation; Tampa, FL	1396	U
Tempered Glass, Inc; Austell, GA	862	U
Tempered Glass Int'l Inc; Union City, CA	879	U
Tempglass, Inc; Perrysburg, OH	592	U
Tempglass Eastern, Inc; Norcross, GA	981	U
Tempglass Southern, Inc; Grand Prairie, TX	1219	U
Texas Tempered Glass Company; Houston, TX	1192	U
TRACO (Three Rivers Alum.); Warrendale, PA	1310	U
Vidrierias De Llodio, S.A.; Alava, Spain	1445	U
Viracon, Inc; Owatonna, MN	1403	U
Virginia Glass Products Corp; Martinsville, VA	12	U
<b>7/32 inch tempered transparent glass</b>		
Ford Glass LTD; Ontario, Canada	1488	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>1/4 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	1535	U
AFG Industries, Inc; Greenland, TN	89	U
AFG Industries, Inc; Kingsport, TN	24	U
American Flat Glass Distrib; Fall River, MA	1520	U
American Flat Glass Distrib; Marietta, GA	1231	U
Chamberlain; Malvern, AR	1378	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1165	U
Downey Glass Co.; Downey, CA	807	U
Downey Glass Co.; Los Angeles, CA	813	U
Elgin Precision Glass Co Inc; Elgin, IL	1372	U
Empire Glass, Inc; Bronx, NY	1399	U
Falconer Glass Industries Inc; Falconer, NY	709	U
Flex-Temp, Inc; Irving, TX	872	U
Ford Glass LTD; Ontario, Canada	1489	U
Fulton Glass Industries, Inc; Red Oak, GA	1132	U
Gateway Industries; Rogers, AR	1357	U
Gemtron Corporation; Sweetwater, TN	1478	U
General Glass Corporation; Denver, CO	1182	U
Geneva Glass Industries; Geneva, IL	1501	U
The Glass Factory, Inc.; Ronkonkoma, NY	1460	U
Glass Tempering Service, Inc; Detroit, MI	1238	U
Glasstemp, Inc.; Bensenville, IL	1382	U
Hamilton Glass Products, Inc; Vincennes, IN	57	U
Havlin Witkin Corporation; Santa Clara, CA	1496	U
Hehr Glass Company; Newton, KS	1516	U
Hehr International, Inc; Chesaning, MI	1517	U
Hordis Brothers, Inc.; Warrenton, MO	1448	U
Howe-Martz Glass Company; Detroit, MI	1268	U
Insulpane, Inc; West Windsor, NY	1470	U
Nashville Tempered Glass Corp; Nashville, TN	1417	U
Ohio Plate Glass Company; Jefferson, TX	1287	U
Ohio Plate Glass Company; Lewisburg, OH	186	U
PPG Industries, Inc; Dallas, TX	402	U
PPG Industries, Inc; Ford City, PA	70	U
PPG Industries, Inc; Hunt Valley, MD	455	U
PPG Industries, Inc; Miami, FL	194	U
San Jacinto Glass Co; Houston, TX	1294	U
Shaw Glass Company, Inc; South Easton, MA	1035	U
Spectrum Glass Company; Clinton, NC	1081	U
Sunbelt Glass, Inc; Tulsa, OK	1455	U
Sunglass Products, Inc.; Claremore, OK	1367	U
Temp-Tech Industries, Inc; Chicago, IL	986	U
Tempered Glass Corporation; Tampa, FL	832	U
Tempered Glass, Inc; Austell, GA	863	U
Tempered Glass Int'l Inc; Union City, CA	1205	U
Tempglass, Inc; Perrysburg, OH	1420	U
Tempglass Eastern, Inc; Norcross, GA	982	U
Tempglass Southern, Inc; Grand Prairie, TX	1044	U
Texas Tempered Glass Company; Houston, TX	137	U
TRACO (Three Rivers Alum.); Warrendale, PA	1311	U
Viracon, Inc; Owatonna, MN	1404	U
Virginia Glass Products Corp; Martinsville, VA	14	U
<b>5/16 inch tempered transparent glass</b>		
Spectrum Glass Company; Clinton, NC	1082	U
<b>3/8 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	639	U
AFG Industries, Inc; Greenland, TN	90	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>3/8 inch tempered transparent glass - continued</b>		
American Flat Glass Distrib; Fall River, MA	1521	U
American Flat Glass Distrib; Marietta, GA	1232	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1166	U
Downey Glass Co.; Los Angeles, CA	814	U
Empire Glass, Inc; Bronx, NY	1400	U
Falconer Glass Industries Inc; Falconer, NY	1280	U
Flex-Temp, Inc; Irving, TX	873	U
Ford Glass LTD; Ontario, Canada	1490	U
Fulton Glass Industries, Inc; Red Oak, GA	1212	U
Geneva Glass Industries; Geneva, IL	1503	U
Glasstemp, Inc.; Bensenville, IL	1383	U
Havlin Witkin Corporation; Santa Clara, CA	1497	U
Howe-Martz Glass Company; Detroit, MI	1269	U
Insulpane, Inc; West Windsor, NY	1471	U
San Jacinto Glass Co; Houston, TX	1295	U
Shaw Glass Company, Inc; South Easton, MA	1036	U
Spectrum Glass Company; Clinton, NC	1083	U
Sunbelt Glass, Inc; Tulsa, OK	1456	U
Sunglass Products, Inc.; Claremore, OK	1375	U
Tempered Glass Corporation; Tampa, FL	833	U
Tempered Glass, Inc; Austell, GA	865	U
Tempered Glass Int'l Inc; Union City, CA	881	U
Tempglass, Inc; Perrysburg, OH	594	U
Tempglass Eastern, Inc; Norcross, GA	1058	U
Tempglass Southern, Inc; Grand Prairie, TX	1045	U
Texas Tempered Glass Company; Houston, TX	1408	U
Viracon, Inc; Owatonna, MN	1508	U
Virginia Glass Products Corp; Martinsville, VA	93	U
<b>1/2 inch tempered transparent glass</b>		
ACI Glass Products, Inc; Santa Fe Springs, CA	640	U
American Flat Glass Distrib; Fall River, MA	1522	U
American Flat Glass Distrib; Marietta, GA	1406	U
Bogardus Wilson Ltd.; Winnipeg, Manitoba, CANADA	1525	U
Colonial Mirror & Glass Corp; Brooklyn, NY	1167	U
Downey Glass Co.; Los Angeles, CA	815	U
Empire Glass, Inc; Bronx, NY	1401	U
Falconer Glass Industries Inc; Falconer, NY	711	U
Flex-Temp, Inc; Irving, TX	874	U
Ford Glass LTD; Ontario, Canada	1491	U
Fulton Glass Industries, Inc; Red Oak, GA	1134	U
Geneva Glass Industries; Geneva, IL	1504	U
The Glass Factory, Inc.; Ronkonkoma, NY	1461	U
Glasstemp, Inc.; Bensenville, IL	1384	U
Havlin Witkin Corporation; Santa Clara, CA	1498	U
Howe-Martz Glass Company; Detroit, MI	1270	U
Insulpane, Inc; West Windsor, NY	1472	U
San Jacinto Glass Co; Houston, TX	1296	U
Shaw Glass Company, Inc; South Easton, MA	1037	U
Spectrum Glass Company; Clinton, NC	1084	U
Sunbelt Glass, Inc; Tulsa, OK	1457	U
Tempered Glass Corporation; Tampa, FL	834	U
Tempered Glass, Inc; Austell, GA	866	U
Tempered Glass Int'l Inc; Union City, CA	882	U
Tempglass, Inc; Perrysburg, OH	595	U
Tempglass Eastern, Inc; Norcross, GA	1059	U
Tempglass Southern, Inc; Grand Prairie, TX	1046	U
Texas Tempered Glass Company; Houston, TX	669	U
Viracon, Inc; Owatonna, MN	1509	U
Virginia Glass Products Corp; Martinsville, VA	94	U
<b>5/8 inch tempered transparent glass</b>		
Spectrum Glass Company; Clinton, NC	1085	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED TRANSPARENT GLASS - continued</b>		
<b>3/4 inch tempered transparent glass</b>		
Empire Glass, Inc; Bronx, NY	1402	U
Falconer Glass Industries Inc; Falconer, NY	712	U
Spectrum Glass Company; Clinton, NC	1086	U
Virginia Glass Products Corp; Martinsville, VA	95	U
<b>TEMPERED PATTERN GLASS</b>		
<b>1/8 inch tempered pattern glass</b>		
Hehr International, Inc; Chesaning, MI	1514	32" by 60"
<b>5/32 inch tempered pattern glass</b>		
American Flat Glass Distrib; Fall River, MA	1524	U
<b>3/16 inch tempered pattern glass</b>		
American Flat Glass Distrib; Fall River, MA	1523	U
Flex-Temp, Inc; Irving, TX	1538	U
<b>1/8 inch tempered pattern glass (shallow)</b>		
Gemtron Corporation; Sweetwater, TN	1423	U
ACI Glass Products, Inc; Santa Fe Springs, CA	1226	U
AFG Industries, Inc; Greenland, TN	587	U
AFG Industries, Inc; Kingsport, TN	1414	U
Downey Glass Co.; Downey, CA	808	U
Gateway Industries; Rogers, AR	1358	U
<b>1/8 inch tempered pattern glass (medium)</b>		
Downey Glass Co.; Downey, CA	809	U
<b>5/32 inch tempered pattern glass (shallow)</b>		
American Flat Glass Distrib; Marietta, GA	1428	U
Gateway Industries; Rogers, AR	1359	U
Gemtron Corporation; Sweetwater, TN	1425	U
Gemtron Corporation; Sweetwater, TN	2001	U
Hamilton Glass Products, Inc; Vincennes, IN	1386	U
Hehr Glass Company; Newton, KS	1507	U
Vidrierias De Llodio, S.A.; Alava, Spain	1331	U
<b>3/16 inch tempered pattern glass (shallow)</b>		
AFG Industries, Inc; Greenland, TN	1139	U
AFG Industries, Inc; Kingsport, TN	1143	U
American Flat Glass Distrib; Marietta, GA	1415	U
Downey Glass Co.; Downey, CA	810	U
Downey Glass Co.; Los Angeles, CA	1114	U
Falconer Glass Industries Inc; Falconer, NY	1330	U
Fulton Glass Industries, Inc; Red Oak, GA	1327	U
Glass Tempering Service, Inc; Detroit, MI	1340	34" by 72"
Hamilton Glass Products, Inc; Vincennes, IN	1387	U
Howe-Martz Glass Company; Detroit, MI	1344	U
Shaw Glass Company, Inc; South Easton, MA	1299	U
Tempered Glass Corporation; Tampa, FL	1329	U
Tempglass Eastern, Inc; Norcross, GA	1338	U
Virginia Glass Products Corp; Martinsville, VA	1275	U
<b>3/16 inch tempered pattern glass (deep)</b>		
Gateway Industries; Rogers, AR	1394	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
<b>TEMPERED PATTERN GLASS - continued</b>		
<b>7/32 inch tempered pattern glass (shallow)</b>		
Downey Glass Co.; Downey, CA	811	U
Downey Glass Co.; Los Angeles, CA	817	U
Havlin Witkin Corporation; Santa Clara, CA	1495	U
Insulpane, Inc; West Windsor, NY	1473	U
Tempered Glass Corporation; Tampa, FL	1210	U
<b>LAMINATED TRANSPARENT GLASS</b>		
<b>3/16 inch laminated transparent glass</b>		
Lear Siegler, Inc; Wichita, KS	1360	U
<b>SAFETY PLASTIC SHEET</b>		
<b>.080 inch through 0.125 inch acrylic</b>		
Flex-O-Glass, Inc; Dixon, IN	118	U
<b>ORGANIC COATED GLASS</b>		
<b>1/8 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1511	U
<b>3/16 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1512	U
<b>1/4 inch organic coated glass</b>		
Air Seal Insul Glass Units Co; Gloucester City, NJ	1513	U
<b>TEMPERED BENT GLASS</b>		
<b>3/8 inch Tempered Bent Glass</b>		
Glasstemp, Inc.; Bensenville, IL	1536	U
<b>1/2 inch Tempered Bent Glass</b>		
Glasstemp, Inc.; Bensenville, IL	1533	U

## PROCEDURAL GUIDE

## FOREWORD

Acceptance of a certified product containing safety glazing materials comes with the conviction that such certification assures a high level of safety and quality and that the integrity of the identifying mark or certification label is being reliably maintained by a competent certifying agency.

The provisions of Federal Standard 16 CFR 1201 provide a sound technical basis for the required high level of safety. With the addition of independent administration plus periodic, routine sampling and product evaluation, a program of product certification is developed that provides an independent third party certification and testing program. The Certification Program described here is predicated upon the concept of independent and impartial administration of the certification procedures which are incorporated in the SGCC license agreement.

To insure administration of the Certification Program in a uniform and equitable manner, this Procedural Guide has been prepared for the information and guidance of the licensees.

It should be noted that the SGCC License Agreement is the governing document for operation of the Certification Program. This Procedural Guide, which is **not** an extension of that document, serves merely to describe the administrative procedure and routine operation of the Certification Program.

## GENERAL INFORMATION

## THE CERTIFICATION CONCEPT

The SGCC Certification Program is based on the conviction that no standard of safety or quality is good without the **continuous adherence of the licensees** to that standard.

To buyers, specifiers, code officials and users, the SGCC certification label offers the manufacturer's **assurance** that his safety glazing material has been **produced in conformance** to Federal Standard 16 CFR 1201 covering safety glazing materials used in buildings.

These regulations are covered in a separate certified products directory.

## WHO CAN BECOME A LICENSEE?

Every manufacturer of safety glazing materials is eligible, **on a voluntary basis**, to participate.

## WHO CONDUCTS THE PROGRAM?

The Safety Glazing Certification Council, a non-profit corporation, is the sponsor of this certification program. SGCC supervises the certification program under which the administrator periodically checks and reports compliance of the manufacturers of products having the SGCC certification label with the requirements of 16 CFR 1201.

## ADMINISTRATION

ETL Testing Laboratories, Inc. (ETL), is the independent **Administrator** of the certification program. ETL maintains the SGCC office of certification and handles the routine day-to-day business. All transactions are done in the name of SGCC.

## HOW CAN YOU BECOME A LICENSEE?

The following must be accomplished before SGCC can certify an item safety glazing material:

- a) The manufacturer signs two copies of the SGCC License Agreement (including notarization of the Affidavit, Appendix A) and sends these to SGCC. SGCC will countersign both copies and return one to the manufacturer.
- b) The manufacturer directs the testing laboratory to send to SGCC one copy of a valid test report from an official SGCC recognized testing laboratory indicating full and complete compliance with the specifications, namely 16 CFR 1201. (This is the "initial" or "prototype" testing and the sample is furnished by the manufacturer directly to any one of the SGCC recognized independent commercial testing laboratories, which the manufacturer selects.)
- c) The manufacturer sends to SGCC the six-month certification fee for each item which is to be certified.

After receipt of all of the above items, SGCC sends to the licensee a notice of product certification which includes a SGCC certification number. This number **must** be incorporated into the permanent label to be affixed on each piece of certified safety glazing material. The certified item will then be listed in the next published certified products directory.

#### HOW THE CERTIFICATION PROGRAM WORKS

The American National Standards Institute sets safety standards and safety glazing materials **must** meet or exceed applicable ANSI standards before they can be certified by SGCC. Specifications for safety glazing materials used in buildings are developed and reviewed at least every five years by ANSI.

SGCC recognized independent testing laboratories conduct all tests. All laboratories, whose test reports are utilized by this certification program, shall be approved by the SGCC certification committee. Initial or prototype tests are performed at the testing laboratory selected by the licensee. Routine evaluation samples are tested by the testing laboratory selected by the administrator.

#### ADMINISTRATOR AUTHORIZES CERTIFICATION

As sole judge of compliance with applicable standards, the administrator authorizes a product which has been approved to be listed in the certified products directory.

Licensees label safety glazing material with the assigned SGCC number.

#### PRODUCTS LISTED IN CERTIFIED PRODUCTS DIRECTORY

Approved products are listed in the certified products directory, which is published at least every six months. It is sent to door, sash and building products manufacturers, glazing contractors, home builders, architects, regulatory agencies and code-making groups, etc. Directory listings contain the licensee's name, plant location, product description and a copy of the actual label that is **permanently** marked upon each piece of certified safety glazing material.

The administrator samples certified glazing material from the licensee's inventory once every six months.

An approved testing laboratory determines compliance of these samples with the specifications. Tests are made either at the place of manufacture or at the laboratory selected by the administrator from the approved list. Results of each test are mailed promptly to the licensee by the administrator.

#### COMPLIANCE SAFEGUARDS

##### HOW IS COMPLIANCE ASSURED?

Any certified product found in the course of routine sampling and evaluation not to be in compliance with the specifications, is subject to having certification removed. The licensee is given a 30-day grace period in which to demonstrate to the satisfaction of the administrator that his product is in compliance. If he does not, certification is **automatically terminated** at the end of the 30-day period.

##### CHALLENGING A CERTIFIED PRODUCT

Complaints of non-compliance from any source will be investigated promptly by SGCC upon receipt of the complaint in writing along with an appropriate surety deposit. A minimum surety deposit of \$1,000 will be required for each complaint of non-compliance. The surety deposit will be assessed at the rate of \$350 per man day **plus** the reasonable costs of travel and the maintenance entailed in resolving such incidents. Refunds of part or all of the surety deposit will be made when applicable. All costs involved will be paid from the complainant's surety deposit, **unless** the investigation proves non-compliance, in which case all costs will be borne by the licensee found to be in non-compliance.

##### WITHDRAWAL OF CERTIFIED PRODUCT

Any product which has been certified may be **voluntarily withdrawn** from the certification program by the licensee at any time.



## **COSTS**

### **WHAT DOES THE PROGRAM COST?**

The licensee pays all projected fees to SGCC on a six-month basis, in advance. A licensee is invoiced for each item that is certified and listed separately in the certified products Directory. The invoice will include the fees for future routine evaluation testing.

Initial certification for each item will be for a period of six months. However, the next invoice to a licensee will have the fees prorated to the nearest whole month in such a manner that participation in the certification program will be on a January 1 to July 1 and July 1 to January 1 basis.

## **CERTIFICATION PROGRAM DOCUMENTS AND AGREEMENTS**

### **LICENSE AGREEMENT**

This agreement, incorporating independent program administration and routine, periodic independent sampling and evaluation, governs the relationship between SGCC and the licensee.

Future amendments or revisions to the license agreement will be recommended by the SGCC certification committee and enacted by the SGCC board of directors.

### **EFFECTIVE DATE, DURATION AND TERMINATION**

The license agreement becomes effective on the date of its execution; has an initial duration of six months (adjustable to a January 1 to July 1 or a July 1 to January 1 basis), and is automatically renewed for successive, additional periods of six months, unless either party gives notice at least sixty days prior to the date of expiration that cancellation is requested or unless revoked by SGCC for causes set forth in the document.

Upon proper execution and acceptance by SGCC the **preissued certification number bond** informs a licensee of the exact mark of an item to be certified in the future. Thus he can purchase the proper marking equipment before the item is actually certified. If the licensee marks this number upon production prior to actual certification the bond is **forfeited to SGCC**.

Upon proper execution and acceptance by SGCC the **test release bond** permits the continuation of certification of an item even though the production facilities are shut down. If the licensee does not notify SGCC within one week of the resumption of production the bond is forfeited to SGCC.

### **ADMINISTRATIVE SERVICE AGREEMENT**

This agreement, entered into by SGCC and ETL Testing Laboratories, Inc., governs the relationship between SGCC and ETL, the independent administrator. In general, it provides that the administrator

- a) samples certified products routinely;
- b) has the right to witness any and all testing required by the program;
- c) reviews all test reports in order to determine compliance of the certified product with the specifications;
- d) inspects and approves all in-plant and test laboratory test facilities for use in this certification program (test laboratories are "recognized" or approved by the SGCC certification committee);
- e) publishes and mails the SGCC certified products directory on or about each January 1 and July 1,
- f) handles all routine clerical duties of SGCC with respect to certification matters;
- g) acts as SGCC treasurer, invoice licensees, maintaining a bank account and disbursing funds (fiscal reports are made to the SGCC certification committee);
- h) furnishes all testing except for prototype tests;
- i) attends all scheduled meetings of the SGCC certification committee and;
- j) in all of its actions acts in the name of SGCC.

**PROCEDURAL GUIDE**

This guide outlines program procedures in accordance with the provisions of the license agreement and the administrative service agreement, for the guidance of those concerned with the procedural details of the certification program. It covers the steps to be taken in any given procedural situation in the interest of equitable and uniform treatment of licensees and the preservation of the integrity of the certification program.

**CERTIFIED PRODUCTS DIRECTORY**

This directory is the one document and publication that is normally in the public's eye and contains a listing of the certified safety glazing materials of each licensee.

**CERTIFICATION LABEL**

This certification mark is permanently affixed to each piece of certified safety glazing material by the licensee. It contains a number that refers to the listing in the certified products directory. The listing then provides a complete product description including the company name, plant location, etc.

**PROGRAM RESPONSIBILITY**

The SGCC board of directors has overall responsibility for the well being and acceptance of the certification program by the industry, building officials and the public. It also bears corporate legal responsibility.

The SGCC certification committee has the responsibility for the general procedure and policy pertaining to operation of the certification program. As a part thereof, it:

- a) establishes certification "guidelines;"
- b) determines the applicability of the specifications in a specific situation where a question is raised by a licensee or the administrator;
- c) approves test laboratories;
- d) determines which of the specifications are to be designated effective for the purposes of product certification and the date or dates on which they become effective;
- e) recommends to the SGCC board of directors changes to be made in the license agreement.

**COMMUNICATIONS**

In all matters concerning the administration and implementation of the SGCC certification program, correspondence may be directed to any of the following:

Mr. Richard L. Morrison, SGCC President  
c/o Ford Motor Company Glass Division  
300 Renaissance Center; P.O. Box 43343  
Detroit, MI 48243  
Telephone: 313-446-4184

Mr. Henry A. Gorry, Chairman  
SGCC Certification Committee  
c/o Guardian Industries Corp.  
43043 West Nine Mile Road  
Northville, MI 48167  
Telephone: 313-349-6700

Mr. Claude F. Robb  
Administrative Manager  
ETL Testing Laboratories, Inc.  
Route 11 - Industrial Park  
Cortland, NY 13045  
Telephone: 607-753-6711

**CERTIFICATION GUIDELINES AND INTERPRETATIONS**

For guidance in certifying safety glazing materials the SGCC certification committee has adopted the following:

**GENERAL****G.1**

Participation in the certification program will be on a January 1 to July 1 and July 1 to January 1 basis. Charges will be prorated to the nearest whole month based on the date of approval of certification.

**G.2**

Tests for initial compliance of safety glazing materials to 16 CFR 1201 will be accepted from any testing laboratory approved by the SGCC certification committee.

**G.3**

None

**G.4**

For insulating glass units to be considered safety glazing material, each light in the construction must be of safety glazing material.

**G.5**

The SGCC item number when used as part of a permanent label designates the name of the licensee (participant) and also the location of the manufacturing plant since the certified products directory which lists the item number and pertinent data is published twice a year.

**G.6**

a) All test specimens, except for prototype samples, must be marked with the correct SGCC permanent label prior to testing in order to be considered a valid sample. The administrator shall construe the absence of a correct permanent label as a failure to comply with the specifications. In such cases of noncompliance, Sections a, c, and e of G.11 shall be followed.

b) The label shall contain the correct SGCC number, the nominal thickness, and reference to the 16 CFR 1201 standard in the following minimum form: 16 CFR 1201 and the category to which it pertains.

For labeling purposes, a demarcation line shall separate those standards covered by the SGCC number from any other standards the licensee wishes to reference.

c) The testing laboratory is to advise the administrator of any specimen that does not in fact bear the correct SGCC permanent label and will be instructed by the administrator not to test but hold the sample.

d) The administrator will inform the licensee of the situation and direct (by letter) the testing laboratory to commence testing no later than 30 days hence. Until that time the testing laboratory is instructed to make these specimens available to the licensee at their convenience (the specimens are to remain at the testing laboratory) in order that the licensee may point out or show them that in fact the SGCC permanent label is correct or agree that in fact the correct SGCC permanent label is not present. In cases of any dispute between the licensee and the testing laboratory the decision of the administrator shall be final. The licensee shall not mark specimens after receipt at the testing laboratory.

**G.7**

None

**G.8**

After initial compliance with a sample size as stated in Table 1, testing of other sizes which represent the sizes manufactured may be allowed, provided however that all sizes produced up to the size provided in the standard 16 CFR 1201 are exposed to selection for testing.

**G.9**

Specimen sizes up to 34 inches by 77 inches shall be valid samples when independently obtained by the administrator for purposes of routine evaluation.

## G.10

In cases where the administrator samples and identifies specimens for routine evaluation on the licensee's premises or requests licensee's samples when none are available at the time of sampling:

a) The licensee be permitted 6 weeks in which to effect delivery of said specimens to the administrator's designated testing laboratory.

b) Failure to act as specified above shall be construed by the administrator as failure of the said specimens to comply with the specifications and the administrator shall act as provided for in license agreement A.6.

## G.11

In cases where a routine evaluation sample fails to comply with the specifications:

a) Written notice and an invoice shall be sent to the licensee by the administrator stating that within 30 days from the date of such notice the licensee must submit a retest sample to the testing laboratory selected by the licensee with the concurrence of the Administrator.

Certification shall be removed if the sample and payment are not received within the allotted 30 days or if the sample submitted fails to comply with the specifications.

b) Within 3 months the administrator shall obtain an additional random sample for evaluation (in addition to the routine evaluation sample obtained twice a year). The administrator shall be certain that this additional sample is of recent production.

c) At the option of the administrator, specimens submitted under a) above shall be either prototype size and pattern or identical to those previously sampled and of recent production.

d) Certification shall be removed if the additional random sample obtained in b) above fails to comply with the Specifications.

e) All costs related to G.11 are to be borne by the licensee.

## G.12

If a licensee who manufactures a certified product outside the 48 contiguous states feels that in a particular instance that he will be unable to act as provided for in paragraph a) of SGCC Guideline G.11, he should notify the administrator. The administrator will then contact the chairman of the certification committee for a decision as to what action is to be taken.

## G.13

In cases where a certified item is produced infrequently or in small quantities so as to make it difficult for the administrator to obtain routine evaluation samples, the licensee shall notify the administrator at least two weeks in advance of any production of such item.

## G.14

The administrator shall remove certification from all of any licensee's products for failure to pay any monies due to SGCC within 30 days of invoice date. (Reference license agreement A.2, A.12 and B.6.)

## G.15

In the situation where a licensee desires to recertify a product that previously had certification removed because of failure to comply with the specifications (label and thickness tolerances excepted), the product shall be routinely sampled four times during the first year. The costs involved shall be paid by the licensee.

## G.16

The nominal thickness designations in SGCC authorized permanent labels for safety glazing materials may be shown in metric units. The thickness will be expressed in millimeters, limited to two decimal places, and will have the suffix "mm."

## G.17

All safety glazing materials that are not symmetrical from surface to surface shall be impacted two specimens on one side and two specimens on the other side.

## G.18

Certified and permanently labeled safety glazing materials such as laminated glass, rigid plastic or organic coated glass may be cut into smaller pieces by a distributor or installer after manufacture and it is not practical for each such smaller piece to bear a manufacturer's permanent label when finally installed in a building. When this is the case, then the distributor or installer shall apply a permanent label to each piece, which states his name and certifies that he cut the piece from material that was properly labeled in accordance with the requirements of SGCC.

For the purpose of this guideline, a permanent label is defined as one that will remain permanently legible and would be destroyed in attempts to remove it from the product.

G.19

The semi-annual invoicing date for certification fees shall be April 1 and October 1 of each year and the administrator is instructed to take those steps necessary to remove certification from licensees for failure of payment prior to closing date of the certified products directory.

G.20

For certification purposes a panel of glazing material composed of multiple components (such a leaded glass) may be tested and interpreted as a unit.

G.21

A preissued SGCC certification number shall be issued by the administrator upon receipt of a properly executed license agreement and a properly executed bond form in the amount of \$10,000. The preissued SGCC certification number, if not used by the licensee, will be terminated twelve months from the date of issue. The condition of the bond is such that if the licensee does not label any safety glazing material with the preissued certification number prior to formal certification then the bond shall be void.

G.22

In the case of plastics and organic coated glass certification of a patterned product may be extended to cover other patterns provided:

- a) The nominal thickness of the proposed alternate and all aspects other than pattern are the same as the certified product.
- b) The administrator of the certification program is provided with a copy of a prototype test from an approved laboratory, showing satisfactory compliance with the test requirements of 16 CFR 1201 for each alternate pattern proposed.
- c) The certification committee is provided with a 6 by 6-inch sample of each proposed alternate for its record and file. This must be sent to the administrator of the certification program.

After admission under blanket certification covering patterned products, any such patterns available may be selected by the administrator for routine sampling and testing.

In the case where a routine evaluation sample covered under a blanket certification fails to comply with the specifications the situation requires that particular product be submitted for the retest sample required by Guideline G.11a and also that particular product be sampled by the administrator for the additional sample required by Guideline G.11b.

G.23

There may be instances when a production facility is temporarily inoperative. This could be caused by, but not limited to, equipment repair or replacement, labor difficulties, energy or material shortages or economic considerations. As a consequence, samples for routine testing may not be available for long periods. The licensee may desire to retain certification during the shutdown period. This shall be done as follows:

- a) Prior to or within 2 weeks after the shutdown, the licensee shall inform the SGCC administrator by certified mail.
- b) The SGCC administrator will immediately supply the licensee with test release bond forms for submission by the licensee. A separate bond shall be submitted for each certified product affected.
- c) Within 2 weeks after receipt of the bond forms, the licensee shall submit them to the SGCC administrator.
- d) During the period covered by the bond the licensee shall retain certification, contingent upon payment of normal certification fees and meeting all other licensee obligations. Bonds will terminate 90 days after acceptance by SGCC but may be renewed by the licensee any number of times. Renewal is an obligation of the licensee and requires all steps listed herein.
- e) Within one week after re-activation of the production facility the licensee shall 1) notify the SGCC administrator by certified mail and 2) submit samples from the first weeks production to an SGCC approved laboratory for testing. In cases where more than one certified product is produced with the same equipment, samples of each must be furnished for testing within the first month. These will be considered as the routine samples for retesting for the six months period during which they are submitted.

f) Failure of the licensee to comply with any of the preceding shall be the basis for removal of certification from the affected products.

**G.24**

When a licensee's production equipment will not produce a size of 34 by 76 inches and the licensee wishes to certify a) a size whose smaller dimension exceeds 34 inches, material shall be tested whose smaller dimension is 34 inches or b) a size whose larger dimension exceeds 76 inches, material shall be tested whose larger dimension is 76 inches.

**G.25**

None

**G.26**

Any label that can be removed intact shall not be considered permanent and is not acceptable to SGCC.

**G.27**

A licensee, by executing a supplementary license agreement, can elect to be in both 16 CFR 1201 and ANSI Z97.1-1984 programs under one SGCC number provided the licensee submits four specimens to be impact tested to ANSI Z97.1-1984 and one specimen to be impact tested to 16 CFR 1201 (all safety glazing materials that are not symmetrical from surface to surface, shall be impacted one specimen on one side and one specimen on the other side for 16 CFR 1201). If any one specimen of the composite sample fails, the entire composite sample will be considered to have failed to comply with both specifications.

**G.28**

The administrator shall construe noncompliance with thickness tolerances as a failure to comply with the specifications. In such cases of noncompliance, Sections a, c, and e of G.11 shall be followed.

**G.29**

For the purposes of certification, the thickness requirements of Federal Specification ASTM C1036-85 shall apply.

**G.30**

For certification purposes, the minimum thickness shall be 0.092 and the maximum thickness shall be 0.108 inches for 0.100 inch glass.

**G.31**

For certification purposes, the nominal thickness of single strength pattern glass shall be 0.094 inches and thickness tolerances shall be plus 0.047 inches and minus 0.015 inches.

**G.32**

When testing to category II requirements, the administrator shall select specimens greater than 9 square feet in surface area.

**TEMPERED TRANSPARENT GLASS****T.1**

Four specimens shall be used for impact testing as detailed in 16 CFR 1201.4(a)(1). Certification of either flat glass or patterned glass will not cover the other except as noted in Guideline T.2. (Flat glass designates ground and polished plate, float and sheet glass.)

**T.2**

Polished plate glass and the rough glass blank from which it is produced will be considered to be of equal nominal thickness. Certification of tempered flat glass will therefore be interpreted as including tempered rough plate blank.

**T.3**

Certification of regular tempered glass will also cover tinted, heat absorbing and coated glasses of the same nominal thickness. Glasses of the same nominal thickness with a ceramic material applied as a continuous or partial coating to one or more surfaces prior to tempering are also covered.

**T.4**

In cases where certified glass is normally not available for sampling, the licensee may make an overrun (of four lights of prototype size that are to be marked with the date of production) when the item is in normal production and these will be accepted by the administrator if other samples are not available the administrator shall notify the licensee to submit prototype size samples to the administrator within six weeks.

## T.5

Certification of any nominal thickness of tempered safety plate, float or sheet glass will also cover the other two types. 16 CFR 1201 does not require the permanent label on tempered safety glass to specify which type of glass is used. Nor is it required that the test specimens be identified in this regard.

## TEMPERED PATTERN GLASS

## TP.1

Four specimens shall be used for impact testing as detailed in 16 CFR 1201.4(a)(1). For the purposes of certification, the nominal thickness of patterned, figured, or rough rolled glass are the common fractions found in ASTM C1036-85. The permanent label must contain this fraction or a metric or decimal dimension within the tolerance of this thickness as published in ASTM C1036-85.

The patterns in each thickness will be classified as to the ratio of minimum to maximum thickness as follows:

<u>Pattern depth class</u>	<u>Ratio</u>
Shallow pattern glass	0.90 or above
Medium pattern glass	0.80 through 0.89
Deep pattern glass	0.79 or below

Certification will be by nominal thickness and pattern depth class. Any pattern in a certified thickness and pattern depth class is certified.

New or unlisted patterns must be submitted to the pattern subcommittee for classification and file, prior to certification. After measurement, the new pattern will be assigned to a pattern depth class.

In the case of 5/32 inch tempered pattern glass refer to ASTM C1048-85 because this thickness is not included in ASTM C1036-85.

Certification of deep also covers medium and shallow patterns of the same nominal thickness.

Certification of medium also covers shallow patterns of the same nominal thickness.

## TP.2

The maximum thickness shall be recorded when measuring the thickness of pattern glass.

## TP.3

For tempered pattern glass, one specimen must be weighed and the weight of ten square inches determined from the weight, width and height of that specimen to use for 16 CFR 1201 test purposes.

## TP.4

For certification purposes, the nominal thickness of 210 tempered pattern glass shall be 0.210 inches and thickness tolerances shall be plus 0.031 inches and minus 0.016 inches.

## TP.5

When medium pattern glass is not available for routine sampling, the licensee submitted specimens must be a medium pattern (a shallow pattern is not acceptable).

## TP.6

When deep pattern glass is not available for routine sampling, the licensee submitted specimens must be a deep pattern (shallow or medium patterns are not acceptable).

## L.1

Four specimens shall be used for impact testing as detailed in 16 CFR 1201.4(a)(1). Certification of regular laminated glass will also cover tinted, heat absorbing and coated glasses, both flat and bent of the same nominal thickness.

## L.2

In cases where certified laminated glass is normally not available for sampling the licensee may make an overrun (of four lights of prototype size that are to be marked with the date of production) when the item is in normal production and these will be accepted by the administrator if other samples are not available. Otherwise, when production samples are not available the administrator shall notify the licensee to submit prototype size samples to the administrator within six weeks.

**LAMINATED GLASS****L.3**

Certification of 7/32 inch laminated glass also covers SS/DS and vice versa.

**L.4**

When a laminated glass is certified, other laminated glasses having the same thickness or thicknesses of glass and a greater thickness of plastic interlayer will be considered to be of equal nominal thickness and will be included in the certification.

**L.5**

Laminated safety glass need not be identified by type of base glass.

**L.6**

Thickness of the plastic interlayer shall be measured by the SGCC standard method.

**L.7**

For certification purposes the following thickness tolerances shall be used. Thickness tolerance shall apply only to the overall thickness. The plus tolerance shall be the sum of all the individual plus tolerances of each layer of the laminate. The minus tolerance shall be the sum of all of the individual minus tolerances of each layer of the laminate. Polyurethane interlayer shall have a thickness tolerance of plus or minus 0.015 inches.

The tolerance of the polyvinylbutyral (PVB) shall be based on the nominal thickness of the interlayer with a plus tolerance of 0.002 and a minus tolerance of 0.004 inches.

**L.8**

When a laminated annealed glass is certified, other laminated glasses having the same thickness or thicknesses of heat strengthened or tempered glass and the same or greater thickness of plastic interlayer of the same chemical composition will be considered to be included in the certification.

**L.9**

When laminated glass is not available for routine sampling, the licensee submitted specimens must contain the identical thickness plastic interlayer that was contained in the prototype specimens.

**PLASTICS - GENERAL****P.1**

One piece of at least one square foot area shall be used for testing the hardness and modulus of elasticity. Certification of one tint or color of rigid plastic will also cover other tints, colors, flat configurations or bent and formed configurations.

**P.2**

For certifying all plastics covering a range of thicknesses, prototype impact tests are required of the minimum thickness and also of the maximum thickness (except that 0.250 inch thickness would be tested if the maximum thickness exceeds 0.250 inches). Only one certification number will be issued and shall be marked upon all thicknesses. Routine evaluation samples are to be selected by the administrator from any of the certified thicknesses.

**P.3**

The following thickness tolerances shall be used for certification purposes:

Outdoor use plastic materials Class 1. Cast acrylic. (Including continuously cast sheet): As specified in Federal Specification LP-391, latest issue.

Outdoor use plastic materials Class 2. Extruded acrylic: As specified in Federal Specification LP-507, latest issue.

Outdoor use plastic materials Class 3. Extruded polycarbonate: As specified in Military Specification MIL-P-46144, latest issue.

Indoor use plastic materials Class 1: Plus or minus 10 percent of nominal thickness.



## P.4

The maximum thickness shall be recorded when measuring the thickness of patterned plastics.

## P.5

Certification of either smooth plastic or patterned plastic will not cover the other.

**PLASTICS - EXTERIOR USE**

## PE.1

Sheet plastics for exterior use must comply with 16 CFR 1201.4(e)(2)(ii)(A) accelerated weathering test Table 1 or simulated weathering test. The equipment shall be an apparatus commercially known as a "Weather-Ometer" or its function equivalent incorporating a carbon arc. It shall be operated in accordance with "Standard Recommended Practice for Operating Light-and-Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Nonmetallic Materials," ASTM G 23069, March 21, 1969, as augmented for plastics (for plastic test specimens only) by "Standard Recommended Practice for Operating Light-and-Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Plastics", ASTM D 1499-64, August 31, 1964. Specimens shall be mounted and control specimens shall be used in the manner specified in the Standard at section 1201.4(d)(2)(ii)(A) or (B), as appropriate. An appropriate water spray cycle shall be used. The specimens shall be exposed in the Weather-Ometer for a period of time which, irradiation equivalent to the accumulated ultraviolet irradiation of 2,000 plus or minus 1 hours of exposure in a twin enclosed carbon-arc Weather-Ometer. Evaluate the test results by using the test criteria set forth in the Standard at section 1201.4(e)(2)(ii)(A) or (B), as appropriate.

Intensified weathering test. The test equipment shall be the Equatorial Mount with Mirrors for Acceleration with Water, such as that found at the Desert Sunshine Exposure Tests, Inc. near Phoenix, Arizona. It shall be operated in accordance with "Standard Recommended Practice for Operating EMMA (QUA)R - A Fresnel-Concentrator Accelerated Weathering Machine Employing Natural Sunshine as Source", ASTM draft standard dated October 1, 1976. The standard water spray cycle of eight minutes on followed by 52 minutes off shall be used. Mounting of specimens and use of control specimens shall be specified in the Standard at section 1201.4(d)(2)(ii)(A) or (B), as appropriate. The specimens shall be exposed to 375,000 plus or minus 10,000 langleys (375 plus or minus 10 kilo-calories per square centimeter) or irradiation. Evaluate the test results by using the test criteria set forth in the Standard at section 1201.4(e)(2)(ii)(A) or (B), as appropriate.

Outdoor weather test. The specimens shall be exposed in outdoor exposure test racks set facing the equator at an angle from the horizontal equal to the latitude of the exposure site. The specimens shall be exposed to 375,000 plus or minus 10,000 langleys (375 plus or minus 10 kilo-calories per square centimeter) or irradiation. Mounting of specimens and use of control specimens shall be as specified in the Standard at section 1201.4(d)(2)(ii)(A) or (B), as appropriate. Evaluate the test results by using the test 1201.4(d)(2)(ii)(A) or (b), as appropriate.

## PE.2

None

## PE.3

For all plastics requiring UV weathering tests an infrared spectrogram shall be obtained of all prototype weathering specimens. An infrared spectrogram shall be obtained of all routine evaluation samples and shall be compared with that of the prototype in lieu of conducting weathering test. The spectral scan shall be made using a minimum film thickness of 0.002 inches or its equivalent.

## PE.4

When initial Charpy unnotched specimens do not break, then notched specimens shall be used for both initial and exposed Charpy impact testing. The specimens shall be notched prior to UV exposure and the notched surface shall be exposed to the UV.

**PLASTICS - INDOOR USE ONLY**

## PI.1

Sheet plastics used in indoor applications only, must comply with Table 1 in the standard.

## PI.2

The permanent label authorized by SGCC must include "Indoor Use Only."

## PI.3

For all indoor plastics requiring aging tests, an infrared spectrogram shall be obtained of all prototype aging specimens. An infrared spectrogram shall be obtained of all routine re-evaluation samples and shall be compared with that of the prototype in lieu of conducting aging tests. The spectral scan shall be made using a minimum film thickness of 0.002 inches or its equivalent.

**ORGANIC COATED GLASS**

**AG.1**

Four specimens shall be used for impact testing as detailed in 16 CFR 1201.4(a)(1). Thickness of the applied plastic coating shall be measured by the SGCC standard method.

**AG.2**

The SGCC authorized permanent label, which complies with Guideline G.26 must be imprinted upon or applied to a surface of the plastic for all plastic coated annealed glasses.

**AG.3**

None

\* \* \* \* \*

Copies of the Standard 16 CFR 1201 may be obtained from:

Consumer Products Safety Commission  
5401 Westbard Avenue  
Bethesda, MD 20016

\* \* \* \* \*



**safety glazing certification council**

**ETL Testing Laboratories, Inc.**  
**Industrial Park - Route 11**  
**Cortland, New York 13045-0950**  
**Phone 607-753-6711**

Additional SGCC Certified Products Directories are available from the SGCC office for \$2.50/copy. A check must accompany each order.

\* \* \* \* \*

**SGCC DIRECTORY ORDER FORM**

PLEASE SEND . . . \_\_\_\_\_ copies of SGCC Certified Products Directory at \$2.50/copy = \_\_\_\_\_ to:

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**SGCC APPROVED TESTING LABORATORIES  
APPROVED FOR TESTING IN THE ANSI AND CPSC  
CERTIFICATION PROGRAMS**

Architectural Testing, Inc.  
Two Interchange Place  
York, PA 17402-9899  
Attention: Mr. Bruce W. Croak  
Telephone: 717-846-7700

Bowser-Morner, Inc.  
420 Davis Avenue; Box 51  
Dayton OH 45401  
Attention: Mr. Robert J. Rosencrans  
Telephone: 513-253-8805

ETL Testing Laboratories, Inc.  
5855-P Oakbrook Parkway  
Norcross, GA 30093  
Attention: Mr. William Penuei  
Telephone: 404-446-7294

ETL Testing Laboratories, Inc.  
Route 11 - Industrial Park  
Cortland, NY 13045  
Attention: Mr. Claude F. Robb  
Telephone: 607-753-6711

Inspection And Research Laboratory, Inc.  
4749 West State Street; Building H  
Ontario, CA 91761  
Attention: Mr. H. Stanley Espenship, P.E.  
Telephone: 714-591-1789

Miami Testing Laboratory, Inc.  
1640 West 32nd Place  
Hialeah, FL 33012  
Attention: Mr. James W. Bailey  
Telephone: 305-822-1141

Northwest Laboratories  
1530 First Avenue South  
Seattle, WA 98134  
Attention: Mr. Alan J. Potter  
Telephone: 206-622-0680

Patzig Testing Laboratories Company, Inc.  
3922 Delaware Avenue  
Des Moines, IA 50313  
Attention: Mr. Byron A. Marks, P.E.  
Telephone: 515-266-5101

Southwestern Laboratories, Inc.  
2200 Gravel Drive; P.O. Box 1379  
Fort Worth, TX 76101-1379  
Attention: Mr. Wayne Tessener  
Telephone: 817-284-7755

United States Testing Company, Inc.  
291 Fairfield Avenue  
Fairfield, NJ 07006  
Attention: Mr. James E. Fuller  
Telephone: 201-575-5252

United States Testing Company, Inc.  
5555 Telegraph Road  
Los Angeles, CA 90040  
Attention: Mr. Bernd Givon  
Telephone: 213-723-7181



**safety glazing certification council**  
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