



safety glazing certification council

JULY 1, 1986

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 May 22, 1986. 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, 1986; 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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Safety Glazing Certification Council
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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

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Robert L. Brown, Virginia Glass Products Corp.
William C. Cooke, AFG Industries, Inc.
Henry A. Gorry, Guardian Industries Corp.
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SGCC Officers

Richard L. Morrison, President
Robert L. Brown, First Vice President
George L. Graf, Jr., 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

Robert A. Moss, Chairman

Henry A. Gorry, Vice-Chairman

Licensee	Primary Member	First Alternate	Second Alternate
AFG Industries, Inc.	William C. Cooke	Billie G. Nichols	Thomas C. Carson
Advanced Coating Technology, Inc.	Paul Gripshover	James W. Seeser	William Watson
Ardco, Inc.	Andrew G. Menke		
Chamberlain	Dick Howk	Bob Gentry	Ned Skoog
Downey Glass Company, Inc.	Jim Pinsky	Bernard Puttler	Joseph D. Pinsky
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 Motor Company	Richard L. Morrison	C. D. Goodman	
Fulton Glass Industries, Inc.	Paul F. Tumey	David Farley	Howard Bienenfeld
Gateway Industries	D. Mann	D. Pruitt	Henry A. Gorry
Gemtron			
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	Gary L. Tate	Ronald Purdue
Lear Siegler, Inc.	Gary Harris	Robert Avers	
Libbey-Owens-Ford Company	Anthony R. Shaw	Mark S. Suffron	
Ohio Plate Glass Company	Gene Gilbert	John Barr	
PPG Canada, Inc.	C. B. Stephenson	W. C. Clanahan	Richard T. McGuire
PPG Industries, Inc.	Richard T. McGuire	Charles R. Sutermeister	John M. Schlueter
Southern Wholesale Glass, Inc.		Douglas A. Long	Freddie Michael
Sunglas Products, Inc.	Richard L. Morrison	Bart Jones	
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		
Tempglass Eastern, Inc.	John C. Mulvanerty		
Temp-Tech Industries, Inc.	Bart Semeraro		
Texas Tempered Glass Company	Dale Williams	James J. Garby	
TRACO	Robert P. Randall	John Kalakos	
Vidrierias De Llodio, S.A.	A. Subinas Landa	Henry A. Gorry	
Viracon, Inc.	Harold Landsman	Rick Voelker	Larry Kunkel
Virginia Glass Products Corporation	Robert L. Brown	Brooks R. Leavitt	A. P. Stillman

Member by virtue of being a director:

National Bureau of Standards	Mario Cellarosi
Consumer	Mrs. Jean Cornwell
Consumer	George L. Graf, Jr.
Consumer	Mrs. Sylvia Lav
Texas Tech University	Joseph E. Minor
Glasstech, Inc.	Norman Nitschke

Members from those without certified products:

Deposition Technology, Inc.	Martin I. Cohen
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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) Raftan	(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) Mistrion 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 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 medium

(107) Seashell	(109) Beadex	(111) Syenite	(112) Flemish	(113) Textured Linex
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210 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) Boradlite
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<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
12 Virginia Glass	402 PPG Industries	982 Tempglass Eastern
14 Virginia Glass	454 PPG Industries	986 Temp-Tech
24 AFG Industries	455 PPG Industries	999 Anglass Industries
28 AFG Industries	458 Guardian Industries	1000 Anglass Industries
40 Guardian Industries	471 Guardian Industries	1002 Downey Glass
41 Guardian Industries	474 PPG Industries	1004 Guardian Industries
54 Hamilton Glass	475 PPG Industries	1034 Shaw Glass
57 Hamilton Glass	482 Tempered Glass Int'l.	1035 Shaw Glass
60 PPG Industries	483 Tempered Glass Int'l.	1036 Shaw Glass
61 PPG Industries	487 Guardian Industries	1037 Shaw Glass
64 PPG Industries	514 Downey Glass	1039 Tempglass
70 PPG Industries	515 Downey Glass	1041 Ardco
89 AFG Industries	516 Downey Glass	1042 Ardco
90 AFG Industries	520 Anglass Industries	1044 Tempglass Southern
93 Virginia Glass	545 LOF Glass	1045 Tempglass Southern
94 Virginia Glass	586 Chamberlain	1046 Tempglass Southern
95 Virginia Glass	587 AFG Industries	1049 Ardco
118 Flex-O-Glass	592 Tempglass	1050 Ohio Plate Glass
131 Guardian Industries	594 Tempglass	1058 Tempglass Eastern
137 Texas Tempered	595 Tempglass	1059 Tempglass Eastern
185 Ohio Plate Glass	598 AFG Industries	1062 Hehr International
186 Ohio Plate Glass	603 Downey Glass	1067 PPG Industries
188 Ohio Plate Glass	604 Downey Glass	1073 Spectrum Glass
194 PPG Industries	605 Downey Glass	1074 Spectrum Glass
195 PPG Industries	606 Downey Glass	1075 Spectrum Glass
209 PPG Canada, Inc.	607 Downey Glass	1076 Spectrum Glass
220 AFG Industries	608 Downey Glass	1077 Spectrum Glass
249 PPG Industries	609 Downey Glass	1078 Spectrum Glass
250 PPG Industries	630 Downey Glass	1079 Spectrum Glass
251 PPG Canada, Inc.	631 Guardian Industries	1107 PPG Industries
295 PPG Industries	633 Guardian Industries	1108 PPG Industries
300 Guardian Industries	638 ACI Glass Products	1110 PPG Industries
320 Tempered Glass, Inc.	639 ACI Glass Products	1111 PPG Industries
321 Tempered Glass, Inc.	640 ACI Glass Products	1112 PPG Industries
322 Tempered Glass, Inc.	654 Ohio Plate Glass	1113 PPG Industries
323 Tempered Glass, Inc.	662 Guardian Industries	1118 Tempered Glass
328 Ohio Plate Glass	669 Texas Tempered	1120 PPG Canada, Inc.
337 Tempered Glass	675 PPG Industries	1123 Fulton Glass
338 Tempered Glass	676 PPG Industries	1124 Fulton Glass
341 Ford Motor Company	678 Downey Glass	1125 Fulton Glass
342 Ford Motor Company	709 Falconer Glass	1126 Fulton Glass
348 Tempered Glass	711 Falconer Glass	1127 Fulton Glass
350 LOF Glass	712 Falconer Glass	1139 AFG Industries
351 LOF Glass	933 Guardian Industries	1143 AFG Industries
352 LOF Glass	934 Guardian Industries	1157 ACI Glass Products
373 LOF Glass	935 Downey Glass	1161 Guardian Industries
374 LOF Glass	949 AFG Industries	1165 Colonial
375 LOF Glass	952 PPG Industries	1166 Colonial
382 PPG Industries	955 AFG Industries	1167 Colonial
390 Flex-Temp	968 Guardian Industries	1173 Lear Siegler
391 Flex-Temp	969 Guardian Industries	1180 General Glass
392 Flex-Temp	970 Guardian Industries	1181 General Glass
396 Ford Motor Company	971 Guardian Industries	1182 General Glass
397 Ford Motor Company	979 Tempglass Eastern	1192 Texas Tempered
400 PPG Industries	981 Tempglass Eastern	1200 Hamilton Glass

<u>SGCC NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
1201 Gemtron	1330 Falconer Glass	1413 Hankuk Glass
1204 Tempered Glass Int'l.	1332 Gemtron	1414 AFG Industries
1216 Guardian Industries	1334 Gemtron	1415 Southern Wholesale
1219 Tempglass Southern	1336 PPG Industries	1416 Nashville Tempered
1225 PPG Industries	1338 Tempglass Eastern	1417 Nashville Tempered
1226 ACI Glass Products	1340 Glass Tempering Service	1418 Nashville Tempered
1230 Southern Wholesale	1341 Colonial	1420 Tempglass
1231 Southern Wholesale	1343 Lear Siegler	1421 Hordis Bros.
1232 Southern Wholesale	1344 Howe-Martz	1422 Gemtron
1235 Guardian Industries	1345 Accutemp Glass	1424 Gemtron
1236 Virginia Glass	1346 Asahi Glass	1426 Gemtron
1238 Glass Tempering Service	1352 Falconer Glass	1428 Southern Wholesale
1241 Tempered Glass Int'l.	1355 Gateway Industries	1429 O & W Glass
1247 PPG Canada, Inc.	1356 Gateway Industries	1430 O & W Glass
1248 Guardian Industries	1357 Gateway Industries	1431 Guardian Industries
1249 Guardian Industries	1358 Gateway Industries	1432 Guardian Industries
1250 Guardian Industries	1359 Gateway Industries	1433 Guardian Industries
1251 Guardian Industries	1360 Lear Siegler	1434 Guardian Industries
1253 Guardian Industries	1361 Sunglas Products	1435 Guardian Industries
1259 Tempglass Eastern	1362 Sunglas Products	1436 AFG Industries
1265 Howe-Martz	1363 Sunglas Products	1437 Flex-Temp., Inc.
1266 Howe-Martz	1369 Elgin Precision Glass	1439 Flex-Temp., Inc.
1268 Howe-Martz	1370 Elgin Precision Glass	1441 Sumitec, Inc.
1269 Howe-Martz	1371 Elgin Precision Glass	1446 Economy Glass
1270 Howe-Martz	1372 Elgin Precision Glass	1447 Economy Glass
1275 Virginia Glass	1374 Sunglas Products	1448 Hordis Brothers
1277 Advanced Coating Tech.	1376 Chamberlain	1449 Economy Glass
1280 Falconer Glass	1377 Chamberlain	1450 Economy Glass
1281 Ohio Plate Glass	1378 Chamberlain	1451 Economy Glass
1282 Falconer-Lewistown	1379 Hordis Brothers	1452 Ohio Plate Glass
1284 Falconer-Lewistown	1380 Hordis Brothers	1453 Sunbelt Glass
1286 Ohio Plate Glass	1381 Glasstemp	1454 Sunbelt Glass
1287 Ohio Plate Glass	1382 Glasstemp	1455 Sunbelt Glass
1292 San Jacinto	1383 Glasstemp	1456 Sunbelt Glass
1293 San Jacinto	1384 Glasstemp	1457 Sunbelt Glass
1294 San Jacinto	1385 Hamilton Glass	1458 The Glass Factory
1295 San Jacinto	1386 Hamilton Glass	1459 The Glass Factory
1296 San Jacinto	1387 Hamilton Glass	1460 The Glass Factory
1298 PPG Industries	1388 Ohio Plate Glass	1461 The Glass Factory
1299 Shaw Glass	1389 Glass Tempering Service	1462 Guardian Industries, Canada
1301 Guardian Industries	1390 AFG Industries	1463 Guardian Industries
1303 Guardian Industries	1393 Saint Gobain	1464 Guardian Industries
1304 Guardian Industries	1394 Gateway Industries	1465 Lin's Glass Co.
1308 TRACO	1395 Tempered Glass	2000 Gemtron
1310 TRACO	1397 Empire Glass	
1311 TRACO	1398 Empire Glass	
1312 TRACO	1399 Empire Glass	
1313 TRACO	1400 Empire Glass	
1314 Guardian Industries	1401 Empire Glass	
1315 Falconer-Lewistown	1402 Empire Glass	
1316 Falconer-Lewistown	1403 Viracon	
1318 Guardian Industries	1404 Viracon	
1323 Ardco	1405 Southern Wholesale	
1326 Fulton Glass	1406 Southern Wholesale	
1328 Tempered Glass	1408 Texas Tempered	

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 CO., INC.; LOS ANGELES, CA				
1157	3/16	(5.0)	TTG	U	630	3/16	(5.0)	TTG	U
638	1/4	(6.0)	TTG	U	514	1/4	(6.0)	TTG	U
639	3/8	(10.0)	TTG	U	515	3/8	(10.0)	TTG	U
640	1/2	(12.0)	TTG	U	516	1/2	(12.0)	TTG	U
1226	1/8	(3.2)	TPG(S)	U	935	3/16	(4.8)	TPG(S)	U
AFG INDUSTRIES, INC.; BRIDGEPORT, WV					678	7/32	(5.6)	TPG(S)	U
1436	1/8	(3.2)	TTG	U	ECONOMY GLASS CORPORATION; SOUTH BOSTON, MA				
AFG INDUSTRIES, INC.; GREENLAND, TN					1446	3/16	(5.0)	TTG	U
598	1/8	(3.0)	TTG	U	1447	1/4	(6.0)	TTG	U
955	5/32	(4.0)	TTG	U	1450	3/8	(10.0)	TTG	U
220	3/16	(5.0)	TTG	U	1451	1/2	(12.0)	TTG	U
89	1/4	(6.0)	TTG	U	1449	7/32	(5.6)	TPG(S)	U
90	3/8	(10.0)	TTG	U	ELGIN PRECISION GLASS CO., INC.; ELGIN, IL				
587	1/8	(3.2)	TPG(S)	U	1369	1/8	(3.0)	TTG	U
1139	3/16	(4.8)	TPG(S)	U	1370	5/32	(4.0)	TTG	U
AFG INDUSTRIES, INC.; KINGSFORD, TN					1371	3/16	(5.0)	TTG	U
1390	1/8	(3.0)	TTG	U	1372	1/4	(6.0)	TTG	U
949	5/32	(4.0)	TTG	U	EMPIRE GLASS, INC.; BRONX, NY				
28	3/16	(5.0)	TTG	U	1397	1/8	(3.0)	TTG	U
24	1/4	(6.0)	TTG	U	1398	3/16	(5.0)	TTG	U
1414	1/8	(3.2)	TPG(S)	U	1399	1/4	(6.0)	TTG	U
1143	3/16	(4.8)	TPG(S)	U	1400	3/8	(10.0)	TTG	U
ADVANCED COATING TECHNOLOGY; FRANKLIN, TN					1401	1/2	(12.0)	TTG	U
1277	1/4	(6.0)	TTG	U	1402	3/4	(19.0)	TTG	U
ANGLASS INDUSTRIES, INC.; SAN FERNANDO, CA					FALCONER GLASS INDUSTRIES, INC.; FALCONER, NY				
520	1/8	(3.0)	TTG	U	1352	3/16	(5.0)	TTG	U
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
ARDCO, INC.; CHICAGO, IL					711	1/2	(12.0)	TTG	U
1041	1/8	(3.0)	TTG	U	712	3/4	(19.0)	TTG	U
1323	5/32	(4.0)	TTG	U	1330	3/16	(4.0)	TPG(S)	U
1042	3/16	(5.0)	TTG	U	FALCONER-LEWISTOWN, INC.; LEWISTOWN, PA				
1049	1/4	(6.0)	TTG	U	1282	7/32	(5.5)	LG(0.015)	U
ASHAI GLASS CO., LTD.; TOKYO, JAPAN					1284	1/4	(6.0)	LG(0.015)	U
1346	3/8	(10.0)	TTG	U	1315	3/8	(10.0)	LG(0.015)	U
CHAMBERLAIN; MALVERN, AR					1316	1/2	(12.0)	LG(0.015)	U
586	1/8	(3.0)	TTG	U	FLEX-O-GLASS, INC.; DIXON, IL				
1376	5/32	(4.0)	TTG	U	118	0.080 inch through 0.125 inch smooth extruded acrylic			U
1377	3/16	(5.0)	TTG	U	FLEX-TEMP, INC.; IRVING, TX				
1378	1/4	(6.0)	TTG	U	390	1/4	(6.0)	TTG	U
COLONIAL MIRROR AND GLASS CORP.; BROOKLYN, NY					391	3/8	(10.0)	TTG	U
1165	1/4	(6.0)	TTG	U	392	1/2	(12.0)	TTG	U
1166	3/8	(10.0)	TTG	U	1437	3/16	(4.8)	TTG	U
1167	1/2	(12.0)	TTG	U	1439	7/32	(5.5)	TPG(S)	U
1341	3/4	(19.0)	TTG	U	FORD MOTOR COMPANY; DEARBORN, MI				
DOWNEY GLASS CO., INC.; DOWNEY, CA					341	1/8	(3.0)	TTG	U
603	1/8	(3.0)	TTG	U	396	5/32	(4.0)	TTG	U
1002	5/32	(4.0)	TTG	U	342	3/16	(5.0)	TTG	U
606	3/16	(5.0)	TTG	U	397	1/4	(6.0)	TTG	U
609	1/4	(6.0)	TTG	U	FULTON GLASS INDUSTRIES, INC.; RED OAK, GA				
604	1/8	(3.2)	TPG(S)	U	1123	5/32	(4.0)	TTG	U
605	1/8	(3.2)	TPG(M)	U	1124	3/16	(5.0)	TTG	U
607	3/16	(4.8)	TPG(S)	U	1125	1/4	(6.0)	TTG	U
608	7/32	(5.6)	TPG(S)	U					

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
FULTON GLASS INDUSTRIES, INC.; RED OAK, GA - CONT'D.					GUARDIAN INDUSTRIES CORP., FORT LAUDERDALE, FL				
1126	3/8	(10.0)	TTG	U	1161	1/8	(3.0)	TTG	U
1127	1/2	(12.0)	TTG	U	633	3/16	(5.0)	TTG	U
1326	3/16	(4.8)	TPG(S)	U	40	1/4	(6.0)	TTG	U
GATEWAY INDUSTRIES; ROGERS, AR					41	3/8	(10.0)	TTG	U
1355	1/8	(3.0)	TTG	U	1004	1/2	(12.0)	TTG	U
1356	3/16	(5.0)	TTG	U	1318	3/16	(4.8)	TPG(S)	U
1357	1/4	(6.0)	TTG	U	GUARDIAN INDUSTRIES CORP., KINGSBURG, CA				
1358	1/8	(3.2)	TPG(S)	U	968	1/8	(3.0)	TTG	U
1359	5/32	(4.0)	TPG(S)	U	969	5/32	(4.0)	TTG	U
1394	3/16	(4.8)	TPG(D)	U	970	3/16	(5.0)	TTG	U
GEMTRON CORPORATION; SWEETWATER, TN					971	1/4	(6.0)	TTG	U
1334	1/8	(3.0)	TTG	U	1303	1/8	(3.2)	TPG(S)	U
1332	5/32	(4.0)	TTG	U	1301	5/32	(4.0)	TPG(M)	U
1426	.169	(4.3)	TTG	U	1304	3/16	(4.8)	TPG(S)	U
1201	3/16	(5.0)	TTG	U	GUARDIAN INDUSTRIES CORP.; UPPER SANDUSKY, OH				
1422	1/8	(3.0)	TPG(S)	U	458	7/32	(5.5)	LTG(0.030)	U
1424	5/32	(4.0)	TPG(S)	U	487	1/4	(6.0)	LTG(0.030)	U
2000	5/32	(4.0)	TPG(S)	U	GUARDIAN INDUSTRIES CORP.; WEBSTER, MA				
GENERAL GLASS CORPORATION; DENVER, CO					300	1/8	(3.0)	TTG	U
1180	5/32	(4.0)	TTG	U	1216	3/16	(5.0)	TTG	U
1181	3/16	(5.0)	TTG	U	662	1/4	(6.0)	TTG	U
1182	1/4	(6.0)	TTG	U	471	3/8	(10.0)	TTG	U
THE GLASS FACTORY, INC.; RONKONKOMA, NY					1235	1/2	(12.0)	TTG	U
1458	1/8	(3.0)	TTG	U	GUARDIAN INDUSTRIES, CORP.; TILLSONBURG, ONTARIO, CANADA				
1459	3/16	(5.0)	TTG	U	1462	1/8	(3.0)	TTG	U
1460	1/4	(6.0)	TTG	U	HAMILTON GLASS PRODUCTS, INC.; VINCENNES, IN				
1461	1/2	(12.0)	TTG	U	54	1/8	(3.0)	TTG	U
GLASS TEMPERING SERVICE, INC.; DETROIT, MI					1385	5/32	(4.0)	TTG	U
1389	1/8	(3.0)	TTG	30" by 76"	1200	3/16	(5.0)	TTG	U
1238	1/4	(6.0)	TTG	32" by 76"	57	1/4	(6.0)	TTG	U
1340	3/16	(5.0)	TPG(S)	32" by 76"	1386	5/32	(4.0)	TPG(S)	U
GLASSTEMP, INC.; BENSENVILLE, IL					1387	3/16	(4.8)	TPG(S)	U
1381	3/16	(5.0)	TTG	U	HANKUK GLASS INDUSTRY COMPANY, LTD.; SEOUL, KOREA				
1382	1/4	(6.0)	TTG	U	1413	1/4	(6.0)	TTG	U
1383	3/8	(10.0)	TTG	U	HEHR INTERNATIONAL, INC.; CHESANING, MI				
1384	1/2	(12.0)	TTG	U	1062	1/8	(3.0)	TTG	32" by 60"
GUARDIAN INDUSTRIES; AUBURN, IN					HORDIS BROTHERS, INC.; WARRENTON, MO				
1431	1/8	(3.0)	TTG	U	1379	1/8	(3.0)	TTG	U
1432	5/32	(4.0)	TTG	U	1380	5/32	(4.0)	TTG	U
1433	3/16	(4.8)	TTG	U	1421	3/16	(5.0)	TTG	U
1434	7/32	(5.5)	TTG	U	1448	1/4	(6.0)	TTG	U
1435	1/4	(6.0)	TTG	U	HOWE-MARTZ GLASS COMPANY; DETROIT, MI				
GUARDIAN INDUSTRIES CORP.; CARLETON, MI					1265	5/32	(4.0)	TTG	U
933	1/8	(3.0)	TTG	U	1266	3/16	(5.0)	TTG	U
934	5/32	(4.0)	TTG	U	1268	1/4	(6.0)	TTG	U
631	3/16	(5.0)	TTG	U	1269	3/8	(10.0)	TTG	U
131	1/4	(6.0)	TTG	U	1270	1/2	(12.0)	TTG	U
GUARDIAN INDUSTRIES CORP., CORSICANA, TX					1344	3/16	(4.8)	TPG(S)	U
1248	1/8	(3.0)	TTG	U	LEAR-SIEGLER, INC.; WICHITA, KS				
1249	5/32	(4.0)	TTG	U	1360	3/16	(5.0)	LTG(0.030)	U
1250	3/16	(5.0)	TTG	U	1173	7/32	(5.5)	LTG(0.015)	U
1251	1/4	(6.0)	TTG	U	1343	3/16	(5.0)	LPG(0.030)(S)	U
1253	3/8	(10.0)	TTG	U					
1463	1/8	(3.0)	TPG(S)	U					
1314	5/32	(4.0)	TPG(S)	U					
1464	7/32	(5.5)	TPG(S)	U					

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
LOF GLASS; LAURINBURG, NC					PPG INDUSTRIES, INC.; MIAMI, FL				
350	1/8	(3.0)	TTG	U	195	3/16	(5.0)	TTG	U
545	5/32	(4.0)	TTG	U	194	1/4	(6.0)	TTG	U
351	3/16	(5.0)	TTG	U	1067	3/8	(10.0)	TTG	U
352	1/4	(6.0)	TTG	U	1336	1/2	(12.0)	TTG	U
373	5/16	(8.0)	TTG	U	1298	3/16	(4.8)	TPG(S)	U
374	3/8	(10.0)	TTG	U	PPG INDUSTRIES, INC.; WICHITA FALLS, TX				
375	1/2	(12.0)	TTG	U	1110	1/8	(3.0)	TTG	U
LIN'S GLASS COMPANY, LTD.; TAIWAN, ROC					1111	5/32	(4.0)	TTG	U
1465	1/8	(3.0)	TTG	20" by 36"	1112	3/16	(5.0)	TTG	U
NASHVILLE TEMPERED GLASS CORP., NASHVILLE, TN					1113	1/4	(6.0)	TTG	U
1416	1/8	(3.0)	TTG	U	PPG CANADA, INC.; OWEN SOUND, ONTARIO, CANADA				
1417	1/4	(6.0)	TTG	U	251	1/8	(3.0)	TTG	U
O & W GLASS; EVERETT, WA					1120	5/32	(4.0)	TTG	U
1429	1/8	(3.0)	TTG	U	209	3/16	(5.0)	TTG	U
1430	3/16	(5.0)	TTG	U	1247	1/4	(6.0)	TTG	U
OHIO PLATE GLASS COMPANY; JEFFERSON, TX					SAINT GOBAIN; GENT, THE NETHERLANDS				
1281	1/8	(3.0)	TTG	U	1393	1/4	(3.0)	TTG	U
1286	3/16	(5.0)	TTG	U	SAN JACINTO GLASS COMPANY; HOUSTON, TX				
1287	1/4	(6.0)	TTG	U	1292	1/8	(3.0)	TTG	U
1388	1/8	(3.2)	TPG(M)	U	1293	3/16	(5.0)	TTG	U
OHIO PLATE GLASS COMPANY; LEWISBURG, OH					1294	1/4	(6.0)	TTG	U
1050	1/8	(3.0)	TTG	U	1295	3/8	(10.0)	TTG	U
1452	5/32	(4.0)	TTG	U	1296	1/2	(12.0)	TTG	U
185	3/16	(5.0)	TTG	U	SHAW GLASS COMPANY, INC.; SOUTH EASTON, MA				
186	1/4	(6.0)	TTG	U	1034	3/16	(5.0)	TTG	U
654	1/8	(3.2)	TPG(M)	U	1035	1/4	(6.0)	TTG	U
188	3/16	(4.8)	TPG(S)	U	1036	3/8	(10.0)	TTG	U
328	3/16	(4.8)	TPG(D)	U	1037	1/2	(12.0)	TTG	U
562	7/32	(5.6)	TPG(S)	U	1299	3/16	(4.8)	TPG(S)	U
PPG INDUSTRIES, INC.; CARLISLE, PA					SOUTHERN WHOLESALE GLASS, INC.; MARIETTA, GA				
250	1/8	(3.0)	TTG	U	1405	1/8	(3.0)	TTG	U
675	5/32	(4.0)	TTG	U	1230	3/16	(5.0)	TTG	U
249	3/16	(5.0)	TTG	U	1231	1/4	(6.0)	TTG	U
382	1/4	(6.0)	TTG	U	1232	3/8	(10.0)	TTG	U
PPG INDUSTRIES, INC.; CRESTLINE, OH					1406	1/2	(12.0)	TTG	U
60	1/8	(3.0)	TTG	U	1428	5/32	(4.0)	TPG(S)	U
PPG INDUSTRIES, INC.; DALLAS, TX					1415	3/16	(5.0)	TPG(S)	U
400	3/16	(5.0)	TTG	U	SPECTRUM GLASS COMPANY; CLINTON, NC				
402	1/4	(6.0)	TTG	U	1073	3/16	(5.0)	TTG	U
1107	3/8	(10.0)	TTG	U	1074	1/4	(6.0)	TTG	U
1108	1/2	(12.0)	TTG	U	1075	5/16	(8.0)	TTG	U
1225	3/4	(19.0)	TTG	U	1076	3/8	(10.0)	TTG	U
PPG INDUSTRIES, INC.; FORD CITY, PA					1077	1/2	(12.0)	TTG	U
61	3/16	(5.0)	TTG	U	1078	5/8	(16.0)	TTG	U
70	1/4	(6.0)	TTG	U	1079	3/4	(19.0)	TTG	U
PPG INDUSTRIES, INC.; FRESNO, CA					SUMITEC, INC.; BENTON HARBOR, MI				
295	1/8	(3.0)	TTG	U	1441	7/32	(5.6)	LTG	U
676	5/32	(4.0)	TTG	U	SUNBELT GLASS, INC.; TULSA, OK				
64	3/16	(5.0)	TTG	U	1453	1/8	(3.0)	TTG	U
PPG INDUSTRIES, INC.; HUNT VALLEY, MD					1454	3/16	(5.0)	TTG	U
454	3/16	(5.0)	TTG	U	1455	1/4	(6.0)	TTG	U
455	1/4	(6.0)	TTG	U	1456	3/8	(10.0)	TTG	U
474	3/8	(10.0)	TTG	U	1457	1/2	(12.0)	TTG	U
475	1/2	(12.0)	TTG	U					
952	3/4	(19.0)	TTG	U					

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
SUNGLAS PRODUCTS, INC.; CLAREMORE, OK					VIRACON, INC.; OWATONNA, MN				
1361	5/32	(4.0)	TTG	U	1403	3/16	(5.0)	TTG	U
1362	3/16	(5.0)	TTG	U	1404	1/4	(6.0)	TTG	U
1363	1/4	(6.0)	TTG	U	VIRGINIA GLASS PRODUCTS CORP.; MARTINSVILLE, VA				
1374	3/8	(10.0)	TTG	U	1236	5/32	(4.0)	TTG	U
TEMP-TECH INDUSTRIES, INC.; CHICAGO, IL					12	3/16	(5.0)	TTG	U
986	1/4	(6.0)	TTG	U	14	1/4	(6.0)	TTG	U
TEMPERED GLASS, INC.; ATLANTA, GA					93	3/8	(10.0)	TTG	U
320	3/16	(5.0)	TTG	U	94	1/2	(12.0)	TTG	U
321	1/4	(6.0)	TTG	U	95	3/4	(19.0)	TTG	U
322	3/8	(10.0)	TTG	U	1275	3/16	(4.8)	TPG(S)	U
323	1/2	(12.0)	TTG	U	CERTIFIED PRODUCTS KEY TTG = TEMPERED TRANSPARENT GLASS TPG = TEMPERED PATTERN GLASS LTG = LAMINATED TRANSPARENT GLASS LPG = LAMINATED PATTERN GLASS (S) = SHALLOW PATTERN (M) = MEDIUM PATTERN (D) = DEEP PATTERN U = UNLIMITED SIZE				
TEMPERED GLASS CORPORATION; TAMPA, FL									
1395	3/16	(5.0)	TTG	U					
337	1/4	(6.0)	TTG	U					
348	3/8	(10.0)	TTG	U					
338	1/2	(12.0)	TTG	U					
1328	3/16	(4.8)	TPG(S)	U					
1118	7/32	(5.6)	TPG(S)	U					
TEMPERED GLASS INT'L, INC.; UNION CITY, CA									
482	3/8	(10.0)	TTG	U					
483	1/2	(12.0)	TTG	U					
1241	3/16	(5.0)	TTG	U					
1204	1/4	(6.0)	TTG	U					
TEMPGLASS, INC.; PERRYSBURG, OH									
1039	1/8	(3.0)	TTG	U					
592	3/16	(5.0)	TTG	U					
594	3/8	(10.0)	TTG	U					
595	1/2	(12.0)	TTG	U					
1420	1/4	(6.0)	TTG	U					
TEMPGLASS EASTERN, INC.; NORCROSS, GA									
979	1/8	(3.0)	TTG	U					
1259	5/32	(4.0)	TTG	U					
981	3/16	(5.0)	TTG	U					
982	1/4	(6.0)	TTG	U					
1058	3/8	(10.0)	TTG	U					
1059	1/2	(12.0)	TTG	U					
1338	3/16	(4.8)	TPG(S)	U					
TEMPGLASS SOUTHERN, INC.; GRAND PRAIRIE, TX									
1219	3/16	(5.0)	TTG	U					
1044	1/4	(6.0)	TTG	U					
1045	3/8	(10.0)	TTG	U					
1046	1/2	(12.0)	TTG	U					
TEXAS TEMPERED GLASS COMPANY; HOUSTON, TX									
1192	3/16	(5.0)	TTG	U					
137	1/4	(6.0)	TTG	U					
669	1/2	(12.0)	TTG	U					
1408	3/8	(10.0)	TTG	U					
TRACO (THREE RIVERS ALUM. CO.); WARRENDALE, PA									
1308	1/8	(3.0)	TTG	U					
1310	3/16	(5.0)	TTG	U					
1311	1/4	(6.0)	TTG	U					
1312	3/8	(10.0)	TTG	U					
1313	1/2	(12.0)	TTG	U					

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
1/8 inch tempered transparent glass		
AFG Industries, Inc.; Bridgeport, WV	1436	U
AFG Industries, Inc.; Greenland, TN	598	U
AFG Industries, Inc.; Kingsport, TN	1390	U
Anglass Industries, Inc.; San Fernando, CA	520	U
Ardco, Inc.; Chicago, IL	1041	U
Chamberlain; Malvern, AR	586	U
Downey Glass Company, Inc.; Downey, CA	603	U
Elgin Precision Glass Co., Inc.; Elgin, IL	1369	U
Empire Glass, Inc.; Bronx, NY	1397	U
Ford Motor Company; Dearborn, MI	341	U
Gateway Industries; Rogers, AR	1355	U
Gemtron Corp.; Sweetwater, TN	1334	U
The Glass Factory, Inc.; Ronkonkoma, NY	1458	U
Glass Tempering Service, Inc.; Detroit, MI	1389	30" by 76"
Guardian Industries Corp.; Auburn, IN	1431	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 International, Inc.; Chesaning, MI	1062	32" by 60"
Hordis Brothers, Inc.; Warrenton, MO	1379	U
LOF Glass; Laurinburg, NC	350	U
Lin's Glass Company, Ltd.; Kaohsiung Hsien, 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
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
PPG Canada, Inc.; Owen Sound, Ontario, Canada	251	U
San Jacinto Glass Company; Houston, TX	1292	U
Southern Wholesale Glass, Inc.; Marietta, GA	1405	U
Sunbelt Glass, Inc.; Tulsa, OK	1453	U
Tempglass, Inc.; Perrysburg, OH	1039	U
Tempglass Eastern, Inc.; Norcross, GA	979	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1308	U

5/32 inch tempered transparent glass

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 Company, Inc.; Downey, PA	1002	U
Elgin Precision Glass Co., Inc.; Elgin, IL	1370	U
Flex-Temp., Irving, TX	1437	U
Ford Motor Company; Dearborn, MI	396	U
Fulton Glass Industries, Inc.; Red Oak, GA	1123	U
Gemtron Corp.; Sweetwater, TN	1332	U
General Glass Corporation; Denver, CO	1180	U
Guardian Industries Corp.; Duburn, IN	1432	U
Guardian Industries Corp.; Carleton, MI	934	U
Guardian Industries Corp.; Corsicana, TX	1249	U
Guardian Industries Corp.; Kingsburg, CA	969	U
Hamilton Glass Products, Inc.; Vincennes, IN	1385	U
Hordis Brothers, Inc.; Warrenton, MO	1380	U
Howe-Martz Glass Co.; Detroit, MI	1265	U
LOF Glass; Laurinburg, NC	545	U
PPG Industries, Inc.; Carlisle, PA	675	U
PPG Industries, Inc.; Fresno, CA	676	U
PPG Industries, Inc.; Wichita Falls, TX	1111	U
PPG Canada, Inc.; Owen Sound, Ontario, Canada	1120	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
5/32 inch tempered transparent glass		
Sunglas Products, Inc.; Claremore, OK	1361	U
Tempglass Eastern, Inc.; Norcross, GA	1259	U
Virginia Glass Products Corp.; Martinsville, VA	1236	U
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
Anglass Industries, Inc.; San Fernando, CA	999	U
Ardco, Inc.; Chichago, IL	1042	U
Chamberlain; Malvern, AR	1377	U
Downey Glass Company, Inc.; Downey, CA	606	U
Downey Glass Company, Inc.; Los Angeles, CA	630	U
Economy Glass Corporation; So. Boston, MA	1446	U
Elgin Precision Glass Company, Inc.; Elgin, IL	1371	U
Empire Glass, Inc.; Bronx, NY	1398	U
Falconer Glass Industries, Inc.; Falconer, NY	1352	U
Ford Motor Company; Dearborn, MI	342	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
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.; DuBurn, IN	1433	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
Hordis Bros.; Warrenton, MD	1421	U
Howe-Martz Glass Company; Detroit, MI	1266	U
LOF Glass; Laurinburg, NC	351	U
O & W Glass Industries, Inc.; Everett, WA	1430	U
Ohio Plate Glass Company; Jefferson, TX	1286	U
Ohio Plate Glass Company; Lewisburg, OH	185	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
PPG Canada, Inc.; Owen Sound, Ontario, Canada	209	U
San Jacinto Glass Company; Houston, TX	1293	U
Shaw Glass Company, Inc.; South Easton, MA	1034	U
Southern Wholesale Glass, Inc.; Marietta, GA	1230	U
Spectrum Glass Company; Clinton, NC	1073	U
Sunbelt Glass, Inc.; Tulsa, OK	1454	U
Sunglas Products, Inc.; Claremore, OK	1362	U
Tempered Glass, Inc.; Atlanta, GA	320	U
Tempered Glass Corporation; Tampa, FL	1395	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 Aluminum Company); Warrendale, PA	1310	U
Viracon, Inc.; Owatonna, MN	1403	U
Virginia Glass Products Corporation; Martinsville, VA	12	U
7/32 inch tempered transparent glass		
Guardian Industries; Auburn, IN	1434	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
1/4 inch tempered transparent glass		
ACI Glass Products, Inc.; Santa Fe Springs, CA	638	
AFG Industries, Inc.; Greenland, TN	89	U
AFG Industries, Inc.; Kingsport, TN	24	U
Advance Coating Technology, Inc.; Franklin, TN	1277	U
Anglass Industries, Inc.; San Fernando, CA	1000	U
Ardco, Inc.; Chicago, IL	1049	U
Chamberlain; Malvern, AR	1378	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1165	U
Downey Glass Company, Inc.; Downey, CA	609	U
Downey Glass Company, Inc.; Los Angeles, CA	514	U
Economy Glass Corporation; So. Boston, MA	1447	U
Elgin Precision Glass Company, 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 Motor Company; Dearborn, MI	397	U
Fulton Glass Industries, Inc.; Red Oak, GA	1125	U
Gateway Industries; Rogers, AR	1357	U
General Glass Corporation; Denver, CO	1182	U
The Glass Factory, Inc.; Ronkonkoma, NY	1460	U
Glass Tempering Service, Inc.; Detroit, MI	1238	32" by 76"
Glasstemp, Inc.; Bensenville, IL	1382	U
Guardian Industries; Auburn, IN	1435	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 Co., LTD.; Seoul, Korea	1413	U
Hordis Brothers, Inc.; Warrenton, MO	1448	U
Howe-Martz Glass Company; Detroit, MI	1268	U
LOF Glass; Laurinburg, NC	352	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.; 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
PPG Canada, Ltd.; Owen Sound, Ontario, Canada	1247	U
Saint Gobain; Gent, Netherland	1393	U
San Jacinto Glass Company; Houston, TX	1294	U
Shaw Glass Company, Inc.; South Easton, MA	1035	U
Southern Wholesale Glass, Inc.; Marietta, GA	1231	U
Spectrum Glass Company; Clinton, NC	1074	U
Sunbelt Glass, Inc.; Tulsa, OK	1455	U
Sunglas Products, Inc.; Claremore, OK	1363	U
Temp-Tech Industries, Inc.; Chicago, IL	986	U
Tempered Glass, Inc.; Atlanta, GA	321	U
Tempered Glass Corporation; Tampa, FL	337	U
Tempered Glass Int'l.; Union City, CA	1204	U
Tempglass Eastern, Inc.; Norcross, GA	982	U
Tempglass, Inc.; Perrysburg, OH	1420	U
Tempglass Southern, Inc.; Grand Prairie, TX	1044	U
Texas Tempered Glass Company; Houston, TX	137	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1311	U
Viracon, Inc.; Owatonna, MN	1404	U
Virginia Glass Products Corporation; Martinsville, VA	14	U

5/16 inch tempered transparent glass

LOF Glass Company; Laurinburg, NC	373	U
Spectrum Glass Company; Clinton, NC	1075	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
3/8 inch tempered transparent glass		
ACI Glass Products, Inc.; Santa Fe Springs, CA	639	U
AFG Industries, Inc.; Greenland, TN	90	U
Asahi Glass Company, Ltd.; Tokyo, Japan	1346	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1166	U
Downey Glass Company, Inc.; Los Angeles, CA	515	U
Economy Glass Corporation; So. Boston, MA	1450	U
Empire Glass, Inc.; Bronx, NY	1400	U
Falconer Glass Industries, Inc.; Falconer, NY	1280	U
Flex-Temp, Inc.; Irving, TX	391	U
Fulton Glass Industries, Inc.; Red Oak, GA	1126	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
Howe-Martz Glass Company, Detroit, MI	1269	U
LOF Glass; Laurinburg, NC	374	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 Company; Houston, TX	1295	U
Shaw Glass Company, Inc.; South Easton, MA	1036	U
Southern Wholesale Glass, Inc.; Marietta, GA	1232	U
Spectrum Glass Company; Clinton, NC	1076	U
Sunbelt Glass, Inc.; Tulsa, OK	1456	U
Sunglas Products, Inc.; Claremore, OK	1374	U
Tempered Glass, Inc.; Atlanta, GA	322	U
Tempglass, Inc.; Perrysburg, OH	594	U
Tempered Glass Corporation; Tampa, FL	348	U
Tempered Glass Int'l., Inc.; Union City, CA	482	U
Tempglass Eastern, Inc.; Norcross, GA	1058	U
Tempglass Southern, Inc.; Grand Prairie, TX	1045	U
Texas Tempered Glass Co.; Houston, TX	1408	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1312	U
Virginia Glass Products Corporation; Martinsville, VA	93	U
1/2 inch tempered transparent glass		
ACI Glass Products, Inc.; Santa Fe Springs, CA	640	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1167	U
Downey Glass Company, Inc.; Los Angeles, CA	516	U
Economy Glass Corporation; So. Boston, MA	1451	U
Empire Glass, Inc.; Bronx, NY	1401	U
Falconer Glass Industries, Inc.; Falconer, NY	711	U
Flex-Temp, Inc.; Irving, TX	392	U
Fulton Glass Industries, Inc.; Red Oak, GA	1127	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
Howe-Martz Glass Company, Detroit, MI	1270	U
LOF Glass; Laurinburg, NC	375	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 Company; Houston, TX	1296	U
Shaw Glass Company, Inc.; South Easton, MA	1037	U
Spectrum Glass Company; Clinton, NC	1077	U
Southern Wholesale Glass, Inc.; Marietta, GA	1406	U
Sunbelt Glass, Inc.; Tulsa, OK	1457	U
Tempered Glass, Inc.; Atlanta, GA	323	U
Tempered Glass Corporation; Tampa, FL	338	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
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1313	U
Virginia Glass Products Corporation; Martinsville, VA	94	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
5/8 inch tempered transparent glass		
Spectrum Glass Company; Clinton, NC	1078	U
3/4 inch tempered transparent glass		
Colonial Mirror and Glass Corporation; Brooklyn, NY	1341	U
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 Corporation; Martinsville, VA	95	U
169 inch tempered transparent glass		
Gemtron Corporation, Sweetwater, TN	1426	U
TEMPERED PATTERN GLASS		
1/8 inch tempered pattern glass (shallow patterns)		
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 Company, Inc.; Downey, CA	604	U
Gateway Industries; Rogers, AR	1358	U
Gemtron Corporation; Sweetwater, TN	1422	U
Guardian Industries Corp.; Kingsburg, CA	1303	U
Guardian Industries Corp.; Corsicana, TX	1463	U
1/8 inch tempered pattern glass (medium patterns)		
Downey Glass Company, Inc.; Downey, CA	605	U
Ohio Plate Glass Company; Jefferson, TX	1388	U
Ohio Plate Glass Company; Lewisburg, OH	654	U
5/32 inch tempered pattern glass (shallow patterns)		
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
Southern Wholesale Glass, Inc.; Marietta, GA	1428	U
5/32 inch tempered pattern glass (medium patterns)		
Guardian Industries Corp.; Kingsburg, CA	1301	U
3/16 inch tempered pattern glass (shallow patterns)		
AFG Industries, Inc.; Greenland, TN	1139	U
AFG Industries, Inc.; Kingsport, TN	1143	U
Downey Glass Company, Inc.; Downey, CA	607	U
Downey Glass Company, Inc.; Los Angeles, CA	935	U
Falconer Glass Industries, Inc.; Falconer, NY	1330	U
Fulton Glass Industries, Inc.; Red Oak, GA	1326	U

SGCC NO.MAX. SIZE
CERTIFIED**TEMPERED PATTERN GLASS - continued****3/16 inch tempered pattern glass (shallow patterns)**

Glass Tempering Service, Inc.; Detroit, MI	1340	32" by 76"
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
Southern Wholesale Glass, Inc.; Marietta, GA	1415	U
Tempered Glass Corporation; Tampa, FL	1328	U
Tempglass Eastern, Inc.; Norcross, GA	1338	U
Virginia Glass Products Corporation; Martinsville, VA	1275	U

3/16 inch tempered pattern glass (deep patterns)

Gateway Industries; Rogers, AR	1394	U
Ohio Plate Glass Company; Lewisburg, OH	328	U

7/32 inch tempered pattern glass (shallow patterns)

Downey Glass Company, Inc.; Downey, CA	608	U
Downey Glass Company, Inc.; Los Angeles, CA	678	U
Economy Glass Corporation; So. Boston, MA	1449	U
Flex-Temp., Inc.; Irving, TX	1439	U
Guardian Industries Corp.; Corsicana, TX	1464	U
Ohio Plate Glass Company; Lewisburg, OH	562	U
PPG Industries, Inc.; Miami, FL	219	U
Tempered Glass Corporation; Tampa, FL	1118	U

LAMINATED GLASS**3/16 inch laminated transparent glass**

Lear Siegler, Inc.; Wichita, KS	1360	U
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7/32 inch laminated transparent glass

Falconer-Lewiston, 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

1/4 inch laminated transparent glass

Falconer-Lewiston, Inc.; Lewistown, PA	1284	U
Guardian Industries Corp.; Upper Sandusky, OH	487	U

3/8 inch laminated transparent glass

Falconer-Lewiston, Inc.; Lewistown, PA	1315	U
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1/2 inch laminated transparent glass

Falconer-Lewiston, Inc.; Lewistown, PA	1316	U
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LAMINATED PATTERN GLASS**3/16 inch laminated pattern glass (shallow patterns)**

Lear Siegler, Inc.; Wichita, KS	1343	U
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0.080 through 0.125 inch acrylic

Flex-O-Glass, Inc.; Dixon, IL	118	U
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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 Corporation
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 designated by 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

None

TEMPERED TRANSPARENT GLASS

T.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 with 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. 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

ARDCO, INC.
12400 South Laramie Avenue
Chicago, IL 60658

(ANSI ONLY)

ardco
TEMPER - GARD
ANSI Z97.1-1984
SGCC-1042 3/16 U

ADVANCED COATING TECHNOLOGY, INC.
306 Beasley Drive
Franklin, TN 37064

ASHAI GLASS COMPANY, LTD.
c/o Global Link, Inc.
3401 Pacific Avenue
Marina Del Rey, CA 90292

(ANSI ONLY)

ACT
ANSI Z97.1-1984
16 CFR 1201 II
SGCC-1277 1/4 U

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

AFG INDUSTRIES, INC.
P.O. Box 929
Kingsport, TN 37662

CHAMBERLAIN
P.O. Box H
Hot Springs, AR 71901

▲▲▲
TEMPERED
16 CFR 1201-II
ANSI Z97.1-1984
1/8U SGCC-1390
AFG 006
BS 6206A

CHAMBERLAIN
TEMPERED SAFETY GLASS
MALVERN, ARKANSAS
16CFR 1201 II
ANSI Z97.1-1984
SGCC-1377 3/16U

ANGLASS INDUSTRIES, INC.
12364 Gladstone Avenue
San Fernando, CA 91342

(ANSI ONLY)

TEMPERED
SAFETY GLASS
ANGLASS
CALIFORNIA, USA
ANSI Z97.1-1984
SGCC-520 1/8U

COLONIAL MIRROR AND GLASS CORPORATION
142 19th Street
Brooklyn, NY 11232

COLONIAL MIRROR & GLASS CORP
SAFETY TEMPERED GLASS
GLAS STEEL 3/4" U
ANSI Z97.1-1984
16 CFR 1201-I, II-SGCC-1166

DOWNEY GLASS COMPANY, INC.
5631 Ferguson Drive
Los Angeles, CA 90022



ECONOMY GLASS CORPORATION
365 Dorchester Avenue (rear)
South Boston, MA 02127

ELGIN PRECISION GLASS COMPANY, INC.
1200 Abbott Drive
Elgin, IL 60120

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

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

FALCONER-LEWISTOWN, INC.
One Belle Avenue
Lewistown, PA 17044

(ANSI ONLY)

FALCONER
Safetec
LAMINATED
ANSI Z97.1-1984
SGCC #1284 1/4U
1-85

FALCONER GLASS INDUSTRIES, INC.
500 South Work Street
Falconer, NY 14733



FLEX-O-GLASS, INC.
1100 North Cicero Avenue
Chicago, IL 60651

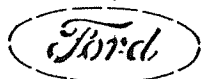
Warpz
FLEX-O-GLAZE™
ACRYLIC SAFETY GLAZING
16 CFR 1201 C11 100U
ANSI Z97.1-84 SGCC-118

FLEX-TEMP, INC.
2120 Vanco Drive
Irving, TX 75061

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

FORD MOTOR COMPANY GLASS DIVISION

300 Renaissance Center; P.O. Box 43343
Detroit, MI 48243



**FORD TEMPERED
SAFETY GLASS**
ANSI Z97.1-1984
SGCC 34 1/8 U
6E

FULTON GLASS INDUSTRIES, INC.

5225 Welcome All Road
Red Oak, GA 30272

FULTONTEMP
SGCC 1134 1/2" U
16 CFR 1201-IL
SGCC 1127
ANSI Z97.1 1984

GATEWAY INDUSTRIES

1414 South First Street
Rogers, AR 72756

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

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

GENERAL GLASS CORPORATION

P.O. Box 38711
Denver, CO 80238

**GENERAL GLASS CORP.****FLATTEMP™****DENVER**

3/16"U SGCC-1181

ANSI Z97.1-1984 16CFR1201-I,II

THE GLASS FACTORY, INC.

5012 Expressway Drive, South
Ronkonkoma, NY 11779

GLASS TEMPERING SERVICE, INC.

14285 Wyoming Street
Detroit, MI 48238

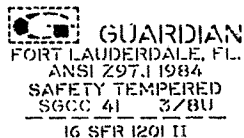
GTS**SAFETY TEMPERED****ANSI Z97.1-1984****16 CFR 1201 II****SGCC-1238 1/4 L****GLASSTEMP, INC.**

1001 Foster Avenue
Bensenville, IL 60106

GLASSTEMP**ANSI Z97.1-1984****16 CFR 1201C II****SGCC-1382****1/4"-U 39**

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

(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

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

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

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



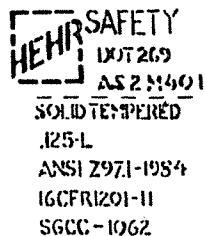
HANKUK GLASS INDUSTRY, LTD.
451 Yeo Ul Do-Dong
Young Deung Po-Ku
Seoul, KOREA 150

(ANSI ONLY)



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

HERH INTERNATIONAL, INC.
1103 West Pearl Street
Chesaning, MI 48616

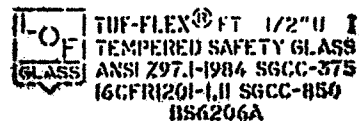


LEAR SIEGLER, INC.
P.O. Box 1879
Wichita, KS 67201

SAFELITE SGCC-1173
LAMINATED 7/32 U
ANSI Z97.1-1984



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




LIN'S GLASS COMPANY, LTD.
c/o Simpson Door Company
Technical Center
700 South First
Shelton, WA 98584

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

PPG HERCULITE K
TEMPERED SAFETY GLASS
16CFR1201 CII
.....
ANSI Z-97.1-1984 1/4U
SGCC-382 6 022685

NASHVILLE TEMPERED GLASS CORP
1040 Cornelia Street
Nashville, TN 37217

N_TG_C 
ANSI Z97.1-1984
16 CFR 1201 CII
SGCC 1416 1/8" U

DOT 359 AS 2

PPG CANADA, INC.
1299 20th Street, East
Owen Sound, Ontario, CANADA N4K 2C3

PPG HERCULITE•K
TEMPERED TREMPÉ
CAN 2-12.1 DOT 165
.....
16 CFR 1201-C11
ANSI Z97.1-1984
SGCC-251 1/8"U

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

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

SAN JACINTO GLASS CO.
P.O. Box 5207
Houston, TX 77262

Starlite
.....
ANSI Z97.1-1984
16 CFR 1201 II
SGCC 1292 1/8 U
SAN JACINTO GLASS CO.
HOUSTON, TX 77262

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

SOUTHERN WHOLESALE GLASS, INC.
3200 Austell Road
Marietta, GA 30060



SOUTHERN TEMP.
ANSI Z97.1-1984
16 CFR 1201-C11
SGCC 1230 3/16" U

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. (ANSI ONLY)
470 North Paw Paw Avenue
Benton Harbor, MI 49022

SUNBELT GLASS, INC.
8531 East 44th Street
Tulsa, OK 74145

SUNGLAS PRODUCTS, INC.
c/o Ford Motor Company Glass Division
300 Renaissance Center; P.O. Box 43343
Detroit, MI 48243

TEMP-TECH INDUSTRIES, INC.
6166 South Sayre
Chicago, IL 60638

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 •

TEMPERED GLASS CORPORATION

6900 Adamo Drive
Tampa, FL 33619

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

**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-II •
- SGCC-1204 SGCC-1205 •

TEMPGLASS, INC.

Ampoint
291 M Street
Perrysburg, OH 43551

TEMPGLASS, INC.

16 CFR 1201 CH
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 1/8" U
85

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

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

TRACO (THREE RIVERS ALUM.)

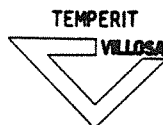
Cranberry Industrial Park
P.O. Box 805
Warrendale, PA 15095



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

VIDRIERIAS 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

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

VIRACON, INC.

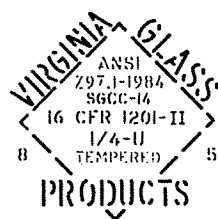
800 Park Drive; P.O. Box 248
Owatonna, MN 55060

VIRACON**TEMPERED**

16 CFR 1201.11
SGCC 1404 1/4" U
ANSI Z97.1 1984
1 85

VIRGINIA GLASS PRODUCTS CORPORATION

P.O. Box 5431
Martinsville, VA 24115



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

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 NO.</u>	<u>SGCC NO.</u>	<u>SGCC NO.</u>
12 Virginia Glass	810 Downey Glass	1112 PPG Industries
14 Virginia Glass	811 Downey Glass	1114 Downey Glass
24 AFG Industries	812 Downey Glass	1120 PPG Canada, Inc.
28 AFG Industries	813 Downey Glass	1130 Fulton Glass
54 Hamilton Glass	814 Downey Glass	1131 Fulton Glass
57 Hamilton Glass	815 Downey Glass	1132 Fulton Glass
60 PPG Industries	817 Downey Glass	1134 Fulton Glass
61 PPG Industries	832 Tempered Glass	1139 AFG Industries
64 PPG Industries	833 Tempered Glass	1143 AFG Industries
70 PPG Industries	834 Tempered Glass	1157 ACI Glass Products
89 AFG Industries	844 LOF Glass	1165 Colonial
90 AFG Industries	845 LOF Glass	1166 Colonial
93 Virginia Glass	846 LOF Glass	1167 Colonial
94 Virginia Glass	847 LOF Glass	1180 General Glass
95 Virginia Glass	848 LOF Glass	1181 General Glass
118 Flex-O-Glass	849 LOF Glass	1182 General Glass
137 Texas Tempered	850 LOF Glass	1192 Texas Tempered
185 Ohio Plate Glass	862 Tempered Glass, Inc.	1200 Hamilton Glass
186 Ohio Plate Glass	863 Tempered Glass, Inc.	1202 Gemtron
194 PPG Industries	865 Tempered Glass, Inc.	1205 Tempered Glass Int'l.
195 PPG Industries	866 Tempered Glass, Inc.	1210 Tempered Glass
209 PPG Canada, Inc.	872 Flex-Temp	1212 Fulton Glass
220 AFG Industries	873 Flex-Temp	1219 Tempglass Southern
249 PPG Industries	874 Flex-Temp	1226 ACI Glass Products
250 PPG Industries	879 Tempered Glass Int'l.	1230 Southern Wholesale
251 PPG Canada, Inc.	881 Tempered Glass Int'l.	1231 Southern Wholesale
295 PPG Industries	882 Tempered Glass Int'l.	1232 Southern Wholesale
400 PPG Industries	949 AFG Industries	1236 Virginia Glass
402 PPG Industries	955 AFG Industries	1238 Glass Tempering Service
454 PPG Canada, Inc.	979 Tempglass Eastern	1259 Tempglass Eastern
455 PPG Industries	981 Tempglass Eastern	1265 Howe-Martz
586 Chamberlain	982 Tempglass Eastern	1266 Howe-Martz
587 AFG Industries	986 Temp-Tech	1268 Howe-Martz
592 Tempglass	1003 Downey Glass	1269 Howe-Martz
594 Tempglass	1034 Shaw Glass	1270 Howe-Martz
595 Tempglass	1035 Shaw Glass	1275 Virginia Glass
598 AFG Industries	1036 Shaw Glass	1277 Advanced Coating Technology
638 ACI Glass Products	1037 Shaw Glass	1280 Falconer Glass
639 ACI Glass Products	1039 Tempglass	1281 Ohio Plate Glass
640 ACI Glass Products	1044 Tempglass Southern	1286 Ohio Plate Glass
669 Texas Tempered	1045 Tempglass Southern	1287 Ohio Plate Glass
675 PPG Industries	1046 Tempglass Southern	1292 San Jacinto
676 PPG Industries	1050 Ohio Plate Glass	1293 San Jacinto
709 Falconer Glass	1058 Tempglass Eastern	1294 San Jacinto
711 Falconer Glass	1059 Tempglass Eastern	1295 San Jacinto
712 Falconer Glass	1062 Hehr International	1296 San Jacinto
727 Ford Motor Company	1080 Spectrum Glass	1299 Shaw Glass
728 Ford Motor Company	1081 Spectrum Glass	1308 TRACO
729 Ford Motor Company	1082 Spectrum Glass	1310 TRACO
730 Ford Motor Company	1083 Spectrum Glass	1311 TRACO
805 Downey Glass	1084 Spectrum Glass	1312 TRACO
806 Downey Glass	1085 Spectrum Glass	1313 TRACO
807 Downey Glass	1086 Spectrum Glass	1327 Fulton Glass
808 Downey Glass	1110 PPG Industries	1329 Tempered Glass
809 Downey Glass	1111 PPG Industries	1330 Falconer Glass

SGCC
NO.

1331 Vidrierias De Llodio
 1333 Gemtron
 1335 Gemtron
 1338 Tempglass Eastern
 1341 Colonial

1343 Lear Siegler
 1344 Howe-Martz
 1352 Falconer Glass
 1355 Gateway Industries
 1356 Gateway Industries

1357 Gateway Industries
 1358 Gateway Industries
 1359 Gateway Industries
 1360 Lear Siegler
 1365 Sunglas Products

1366 Sunglas Products
 1367 Sunglas Products
 1369 Elgin Precision Glass
 1370 Elgin Precision Glass
 1371 Elgin Precision Glass

1372 Elgin Precision Glass
 1375 Sunglas Products
 1376 Chamberlain
 1377 Chamberlain
 1378 Chamberlain

1379 Hordis Brothers
 1380 Hordis Brothers
 1381 Glasstempers
 1382 Glasstemp
 1383 Glasstemp

SGCC
NO.

1384 Glasstemp
 1385 Hamilton Glass
 1386 Hamilton Glass
 1387 Hamilton Glass
 1389 Glass Tempering Service

1390 AFG Industries
 1394 Gateway Industries
 1396 Tempered Glass
 1397 Empire Glass
 1398 Empire Glass

1399 Empire Glass
 1400 Empire Glass
 1401 Empire Glass
 1402 Empire Glass
 1403 Viracon

1404 Viracon
 1405 Southern Wholesale
 1406 Southern Wholesale
 1407 Vidrierias De Llodio
 1408 Texas Tempered

1414 AFG Industries
 1415 Southern Wholesale
 1416 Nashville Tempered
 1417 Nashville Tempered
 1420 Tempglass, Inc.

1421 Hordis Bros.
 1423 Gemtron
 1425 Gemtron
 1427 Gemtron
 1428 Southern Wholesale

SGCC
NO.

1429 O & W Glass
 1430 O & W Glass
 1436 AFG Industries
 1438 Flex-Temp., Inc.
 1440 Flex-Temp., Inc.

1445 Vidrierias de Llodio
 1446 Economy Glass
 1447 Economy Glass
 1448 Hordis Brothers
 1449 Economy Glass

1450 Economy Glass
 1451 Economy Glass
 1452 Ohio Plate Glass
 1453 Sunbelt Glass
 1454 Sunbelt Glass

1455 Sunbelt Glass
 1456 Sunbelt Glass
 1457 Sunbelt Glass
 1458 The Glass Factory
 1459 The Glass Factory

1460 The Glass Factory
 1461 The Glass Factory
 1465 Lin's Glass Co.
 2001 Gemtron

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
ACI GLASS PRODUCTS, INC.; SANTA FE SPRINGS, CA					ECONOMY GLASS CORP.; SOUTH BOSTON, MA				
1157	3/16	(5.0)	TTG	U	1446	3/16	(5.0)	TTG	U
638	1/4	(6.0)	TTG	U	1447	1/4	(6.0)	TTG	U
639	3/8	(10.0)	TTG	U	1450	3/8	(10.0)	TTG	U
640	1/2	(12.0)	TTG	U	1451	1/2	(12.0)	TTG	U
1226	1/8	(3.2)	TPG(S)	U	1449	7/32	(5.1)	TPG(S)	U
AFG INDUSTRIES, INC.; BRIDGEPORT, WV					EMPIRE GLASS, INC.; BRONX, NY				
1436	1/8	(3.0)	TTG	U	1397	1/8	(3.0)	TTG	U
AFG INDUSTRIES, INC.; GREENLAND, TN					1398	3/16	(5.0)	TTG	U
598	1/8	(3.0)	TTG	U	1399	1/4	(6.0)	TTG	U
955	5/32	(4.0)	TTG	U	1400	3/8	(10.0)	TTG	U
220	3/16	(5.0)	TTG	U	1401	1/2	(12.0)	TTG	U
89	1/4	(6.0)	TTG	U	1402	3/4	(19.0)	TTG	U
90	3/8	(10.0)	TTG	U	FALCONER GLASS INDUSTRIES, INC.; FALCONER, NY				
587	1/8	(3.2)	TPG(S)	U	1352	3/16	(5.0)	TTG	U
1139	3/16	(4.8)	TPG(S)	U	709	1/4	(6.0)	TTG	U
AFG INDUSTRIES, INC.; KINGSPORT, TN					1280	3/8	(10.0)	TTG	U
1390	1/8	(3.0)	TTG	U	711	1/2	(12.0)	TTG	U
949	5/32	(4.0)	TTG	U	712	3/4	(19.0)	TTG	U
28	3/16	(5.0)	TTG	U	1330	3/16	(4.0)	TPG(S)	U
24	1/4	(6.0)	TTG	U	FLEX-O-GLASS, INC.; DIXON, IL				
1414	1/8	(3.2)	TPG(S)	U	118	0.080 inch through 0.125 inch smooth extruded acrylic			U
1143	3/16	(4.8)	TPG(S)	U	FLEX-TEMP, INC.; IRVING, TX				
ADVANCED COATING TECHNOLOGY,; FRANKLIN, TN					872	1/4	(6.0)	TTG	U
1277	1/4	(6.0)	TTG	U	873	3/8	(10.0)	TTG	U
CHAMBERLAIN; MALVERN, AR					874	1/2	(12.0)	TTG	U
586	1/8	(3.0)	TTG	U	1438	3/16	(4.0)	TTG	U
1376	5/32	(4.0)	TTG	U	1440	7/32	(5.6)	TPG	U
1377	3/16	(5.0)	TTG	U	FORD MOTOR COMPANY; DEARBORN, MI				
1378	1/4	(6.0)	TTG	U	727	1/8	(3.0)	TTG	U
COLONIAL MIRROR AND GLASS CORP.; BROOKLYN, NY					728	5/32	(4.0)	TTG	U
1165	1/4	(6.0)	TTG	U	729	3/16	(5.0)	TTG	U
1166	3/8	(10.0)	TTG	U	730	1/4	(6.0)	TTG	U
1167	1/2	(12.0)	TTG	U	FULTON GLASS INDUSTRIES, INC.; RED OAK, GA				
1341	3/4	(19.0)	TTG	U	1130	5/32	(4.0)	TTG	U
DOWNEY GLASS CO., INC.; DOWNEY, CA					1131	3/16	(5.0)	TTG	U
805	1/8	(3.0)	TTG	U	1132	1/4	(6.0)	TTG	U
1003	5/32	(4.0)	TTG	U	1212	3/8	(10.0)	TTG	U
806	3/16	(5.0)	TTG	U	1134	1/2	(12.0)	TTG	U
807	1/4	(6.0)	TTG	U	1327	3/16	(4.8)	TPG(S)	U
808	1/8	(3.2)	TPG(S)	U	GATEWAY INDUSTRIES; ROGERS, AR				
809	1/8	(3.2)	TPG(M)	U	1355	1/8	(3.0)	TTG	U
810	3/16	(4.8)	TPG(S)	U	1356	3/16	(5.0)	TTG	U
811	7/32	(5.6)	TPG(S)	U	1357	1/4	(6.0)	TTG	U
DOWNEY GLASS CO., INC.; LOS ANGELES, CA					1358	1/8	(3.2)	TPG(S)	U
812	3/16	(5.0)	TTG	U	1359	5/32	(4.0)	TPG(S)	U
813	1/4	(6.0)	TTG	U	1394	3/16	(4.8)	TPG(S)	U
814	3/8	(10.0)	TTG	U	GEMTRON CORPORATION; SWEETWATER, TN				
815	1/2	(12.0)	TTG	U	1335	1/8	(3.0)	TTG	U
1114	3/16	(4.8)	TPG(S)	U	1333	5/32	(4.0)	TTG	U
817	7/32	(5.6)	TPG(S)	U	1427	.169	(4.3)	TTG	U
ELGIN PRECISION GLASS CO., INC.; ELGIN, IL					1202	3/16	(5.0)	TTG	U
1369	1/8	(3.0)	TTG	U	1423	1/8	(3.0)	TPG(S)	U
1370	5/32	(4.0)	TTG	U	1425	5/32	(4.0)	TPG(S)	U
1371	3/16	(5.0)	TTG	U	2001	5/32	(4.0)	TPG(S)	U
1372	1/4	(6.0)	TTG	U	GENERAL GLASS CORPORATION; DENVER, CO				
					1180	5/32	(4.0)	TTG	U
					1181	3/16	(5.0)	TTG	U
					1182	1/4	(6.0)	TTG	U

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
THE GLASS FACTORY, INC.; RONKONKOMA, NY					OHIO PLATE GLASS COMPANY; LEWISBURG, OH				
1458	1/8	(3.0)	TTG	U	1050	1/8	(3.0)	TTG	U
1459	3/16	(5.0)	TTG	U	1452	5/32	(4.0)	TTG	U
1460	1/4	(6.0)	TTG	U	185	3/16	(5.0)	TTG	U
1461	1/2	(12.0)	TTG	U	186	1/4	(6.0)	TTG	U
GLASS TEMPERING SERVICE, INC.; DETROIT, MI					O & W GLASS; EVERETT, IN				
1389	1/8	(3.0)	TTG	30" by 76"	1429	1/8	(3.0)	TTG	U
1238	1/4	(6.0)	TTG	U	1430	3/16	(5.0)	TTG	U
1340	3/16	(5.0)	TPG	34" by 72"	PPG INDUSTRIES, INC.; CARLISLE, PA				
GLASSTEMP, INC.; BENSENVILLE, IL					250	1/8	(3.0)	TTG	U
1381	3/16	(5.0)	TTG	U	675	5/32	(4.0)	TTG	U
1382	1/4	(6.0)	TTG	U	249	3/16	(5.0)	TTG	U
1383	3/8	(10.0)	TTG	U	PPG INDUSTRIES, INC.; CRESTLINE, OH				
1384	1/2	(12.0)	TTG	U	60	1/8	(3.0)	TTG	U
HAMILTON GLASS PRODUCTS, INC.; VINCENNES, IN					PPG INDUSTRIES, INC.; DALLAS, TX				
54	1/8	(3.0)	TTG	U	400	3/16	(5.0)	TTG	U
1385	5/32	(4.0)	TTG	U	402	1/4	(6.0)	TTG	U
1200	3/16	(5.0)	TTG	U	PPG INDUSTRIES, INC.; FORD CITY, PA				
57	1/4	(6.0)	TTG	U	61	3/16	(5.0)	TTG	U
1386	5/32	(4.0)	TPG(S)	U	70	1/4	(6.0)	TTG	U
1387	3/16	(4.8)	TPG(S)	U	PPG INDUSTRIES, INC.; FRESNO, CA				
HEHR INTERNATIONAL, INC.; CHESANING, MI					295	1/8	(3.0)	TTG	U
1062	1/8	(3.0)	TTG	32" by 60"	676	5/32	(4.0)	TTG	U
HORDIS BROTHERS, INC.; WARRENTON, MO					64	3/16	(5.0)	TTG	U
1379	1/8	(3.0)	TTG	U	PPG INDUSTRIES, INC.; HUNT VALLEY, MD				
1380	5/32	(4.0)	TTG	U	454	3/16	(5.0)	TTG	U
1421	3/16	(5.0)	TTG	U	455	1/4	(6.0)	TTG	U
1448	1/4	(6.0)	TTG	U	PPG INDUSTRIES, INC.; MIAMI, FL				
HOWE-MARTZ GLASS COMPANY; DETROIT, MI					195	3/16	(5.0)	TTG	U
1265	5/32	(4.0)	TTG	U	194	1/4	(6.0)	TTG	U
1266	3/16	(5.0)	TTG	U	PPG INDUSTRIES, INC.; WICHITA FALLS, TX				
1268	1/4	(6.0)	TTG	U	1110	1/8	(3.0)	TTG	U
1269	3/8	(10.0)	TTG	U	1111	5/32	(4.0)	TTG	U
1270	1/2	(12.0)	TTG	U	1112	3/16	(5.0)	TTG	U
1344	3/16	(4.8)	TPG(S)	U	PPG IND. CANADA, LTD.; OWEN SOUND, ONTARIO, CANADA				
LOF GLASS; LAURINBURG, NC					251	1/8	(3.0)	TTG	U
844	1/8	(3.0)	TTG	U	1120	5/32	(4.0)	TTG	U
845	5/32	(4.0)	TTG	U	209	3/16	(5.0)	TTG	U
846	3/16	(5.0)	TTG	U	SAN JACINTO GLASS COMPANY; HOUSTON, TX				
847	1/4	(6.0)	TTG	U	1292	1/8	(3.0)	TTG	U
848	5/16	(8.0)	TTG	U	1293	3/16	(5.0)	TTG	U
849	3/8	(10.0)	TTG	U	1294	1/4	(6.0)	TTG	U
850	1/2	(12.0)	TTG	U	1295	3/8	(10.0)	TTG	U
LIN'S GLASS COMPANY, LTD.; TAIWAN, R.O.C.					1296	1/2	(12.0)	TTG	U
1465	1/8	(3.0)	TTG	20" by 36"	SHAW GLASS COMPANY, INC.; SOUTH EASTON, MA				
LEAR-SIEGLER, INC.; WICHITA, KS					1034	3/16	(5.0)	TTG	U
1360	3/16	(5.0)	LTG(0.030)	U	1035	1/4	(6.0)	TTG	U
1343	3/16	(5.0)	LPG(0.030)(S)	U	1036	3/8	(10.0)	TTG	U
NASHVILLE TEMPERED GLASS CORP.; NASHVILLE, TN					1037	1/2	(12.0)	TTG	U
1416	1/8	(3.0)	TTG	U	1299	3/16	(4.8)	TPG(S)	U
1417	1/4	(6.0)	TTG	U	OHIO PLATE GLASS COMPANY; JEFFERSON, TX				
OHIO PLATE GLASS COMPANY; JEFFERSON, TX					1281	1/8	(3.0)	TTG	U
1281	1/8	(3.0)	TTG	U	1286	3/16	(5.0)	TTG	U
1286	3/16	(5.0)	TTG	U	1287	1/4	(6.0)	TTG	U
1287	1/4	(6.0)	TTG	U					

SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED	SGCC NO.	INCH	(MM)	TYPE	MAX. SIZE CERTIFIED
SOUTHERN WHOLESALE GLASS, INC.; MARIETTA, GA					TEMPGLASS EASTERN, INC.; NORCROSS, GA				
1405	1/8	(3.0)	TTG	U	979	1/8	(3.0)	TTG	U
1230	3/16	(5.0)	TTG	U	1259	5/32	(4.0)	TTG	U
1231	1/4	(6.0)	TTG	U	981	3/16	(5.0)	TTG	U
1232	3/8	(10.0)	TTG	U	982	1/4	(6.0)	TTG	U
1406	1/2	(12.0)	TTG	U	1058	3/8	(10.0)	TTG	U
1428	5/32	(4.0)	TPG(S)	U	1059	1/2	(12.0)	TTG	U
1415	3/16	(5.0)	TPG(S)	U	1338	3/16	(4.8)	TPG(S)	U
SPECTRUM GLASS COMPANY; CLINTON, NC					TEMPGLASS SOUTHERN, INC.; GRAND PRAIRIE, TX				
1080	3/16	(5.0)	TTG	U	1219	3/16	(5.0)	TTG	U
1081	1/4	(6.0)	TTG	U	1044	1/4	(6.0)	TTG	U
1082	5/16	(8.0)	TTG	U	1045	3/8	(10.0)	TTG	U
1083	3/8	(10.0)	TTG	U	1046	1/2	(12.0)	TTG	U
1084	1/2	(12.0)	TTG	U	TEXAS TEMPERED GLASS COMPANY; HOUSTON, TX				
1085	5/8	(16.0)	TTG	U	1192	3/16	(5.0)	TTG	U
1086	3/4	(19.0)	TTG	U	137	1/4	(6.0)	TTG	U
SUNBELT GLASS, INC.; TULSA, OK					1408	3/8	(10.0)	TTG	U
1453	1/8	(3.0)	TTG	U	669	1/2	(12.0)	TTG	U
1454	3/16	(5.0)	TTG	U	TRACO (THREE RIVERS ALUM. CO.); WARRENDALE, PA				
1455	1/4	(6.0)	TTG	U	1308	1/8	(3.0)	TTG	U
1456	3/8	(10.0)	TTG	U	1310	3/16	(5.0)	TTG	U
1457	1/2	(12.0)	TTG	U	1311	1/4	(6.0)	TTG	U
SUNGLAS PRODUCTS, INC.; CLAREMORE, OK					1312	3/8	(10.0)	TTG	U
1365	5/32	(4.0)	TTG	U	1313	1/2	(12.0)	TTG	U
1366	3/16	(5.0)	TTG	U	VIDRIERIAS DE LLODIO, S.A.; ALAVA, SPAIN				
1367	1/4	(6.0)	TTG	U	1445	3/16	(5.0)	TTG	U
1375	3/8	(10.0)	TTG	U	1407	1/8	(3.2)	TPG(M)	U
TEMP-TECH INDUSTRIES, INC.; CHICAGO, IL					1331	5/32	(4.0)	TPG(S)	U
986	1/4	(6.0)	TTG	U	VIRACON, INC.; OWATONNA, MN				
TEMPERED GLASS, INC.; ATLANTA, GA					1403	3/16	(5.0)	TTG	U
862	3/16	(5.0)	TTG	U	1404	1/4	(6.0)	TTG	U
863	1/4	(6.0)	TTG	U	VIRGINIA GLASS PRODUCTS CORP.; MARTINSVILLE, VA				
865	3/8	(10.0)	TTG	U	1236	5/32	(4.0)	TTG	U
866	1/2	(12.0)	TTG	U	12	3/16	(5.0)	TTG	U
TEMPERED GLASS CORPORATION; TAMPA, FL					14	1/4	(6.0)	TTG	U
1396	3/16	(5.0)	TTG	U	93	3/8	(10.0)	TTG	U
832	1/4	(6.0)	TTG	U	94	1/2	(12.0)	TTG	U
833	3/8	(10.0)	TTG	U	95	3/4	(19.0)	TTG	U
834	1/2	(12.0)	TTG	U	1275	3/16	(4.8)	TPG(S)	U
1329	3/16	(4.8)	TPG(S)	U	CERTIFIED PRODUCTS KEY				
1210	7/32	(5.6)	TPG(S)	U					
TEMPERED GLASS INT'L, INC.; UNION CITY, CA									
879	3/16	(5.0)	TTG	U					
1205	1/4	(6.0)	TTG	U					
881	3/8	(10.0)	TTG	U					
882	1/2	(12.0)	TTG	U					
TEMPGLASS, INC.; PERRYSBURG, OH									
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					

TTG = TEMPERED TRANSPARENT GLASS

TPG = TEMPERED PATTERN GLASS

LTG = LAMINATED TRANSPARENT GLASS

LPG = LAMINATED PATTERN GLASS

(S) = SHALLOW PATTERN

(M) = MEDIUM PATTERN

(D) = DEEP PATTERN

U = UNLIMITED SIZE

TTG = TEMPERED TRANSPARENT GLASS

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	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
1/8 inch tempered transparent glass		
AFC Industries, Inc.; Bridgeport, WV	1436	U
AFG Industries, Inc.; Greenland, TN	598	U
AFG Industries, Inc.; Kingsport, TN	1390	U
Chamberlain; Malvern, AR	586	U
Downey Glass Company, Inc.; Downey, CA	805	U
Elgin Precision Glass Co., Inc.; Elgin, IL	1369	U
Empire Glass, Inc.; Bronx, NY	1397	U
Ford Motor Company; Dearborn, MI	727	U
Gateway Industries; Rogers, AR	1355	U
Gemtron Corp.; Sweetwater, TN	1335	U
The Glass Factory, Inc.; Ronkonkoma, NY	1458	U
Glass Tempering Service, Inc.; Detroit, MI	1389	30" by 76"
Hamilton Glass Products, Inc.; Vincennes, IN	54	U
Hehr International, Inc.; Chesaning, MI	1062	32" by 60"
Hordis Brothers, Inc.; Warrenton, MO	1379	U
LOF Glass; Laurinburg, NC	844	U
Lin's Glass Company, Ltd.; Kaohsiung Hsien, 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
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
PPG Canada, Inc.; Owen Sound, Ontario, Canada	251	U
San Jacinto Glass Company; Houston, TX	1292	U
Southern Wholesale Glass, Inc.; Marietta, GA	1405	U
Sunbelt Glass, Inc.; Tulsa, OK	1453	U
Tempglass, Inc.; Perrysburg, OH	1039	U
Tempglass Eastern, Inc.; Norcross, GA	979	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1308	U
5/32 inch tempered transparent glass		
AFG Industries, Inc.; Greenland, TN	955	U
AFG Industries, Inc.; Kingsport, TN	949	U
Chamberlain; Malvern, AR	1376	U
Downey Glass Company, Inc.; Downey, CA	1003	U
Elgin Precision Glass Co., Inc.; Elgin, IL	1370	U
Ford Motor Company; Dearborn, MI	728	U
Fulton Glass Industries, Inc.; Red Oak, GA	1130	U
Gemtron Corp.; Sweetwater, TN	1333	U
General Glass Corporation; Denver, CO	1180	U
Hamilton Glass Products, Inc.; Vincennes, IN	1385	U
Hordis Brothers, Inc.; Warrenton, MO	1380	U
Howe-Martz Glass Co.; Detroit, MI	1265	U
LOF Glass; Laurinburg, NC	845	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
PPG Canada, Inc.; Owen Sound, Ontario, Canada	1120	U
Sunglas Products, Inc.; Claremore, OK	1365	U
Tempglass Eastern, Inc.; Norcross, GA	1259	U
Virginia Glass Products Corp.; Martinsville, VA	1236	U
TEMPERED TRANSPARENT GLASS		
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
Chamberlain; Malvern, AR	1377	U
Downey Glass Company, Inc.; Downey, CA	806	U
Downey Glass Company, Inc.; Los Angeles, CA	812	U
Elgin Precision Glass Company, Inc.; Elgin, IL	1371	U
Empire Glass, Inc.; Bronx, NY	1398	U

TEMPERED TRANSPARENT GLASS - continued
3/16 inch tempered transparent glass

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
Falconer Glass Industries, Inc.; Falconer, NY	1352	U
Flex-Temp., Inc.; Irving, TX	1438	U
Ford Motor Company; Dearborn, MI	729	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
The Glass Factory, Inc.; Ronkonkoma, NY	1459	U
Glasstemp, Inc.; Bensenville, IL	1381	U
Hamilton Glass Products, Inc.; Vincennes, IN	1200	U
Howe-Martz Glass Company; Detroit, MI	1266	U
LOF Glass; Laurinburg, NC	846	U
O & W Glass Industries, Inc.; Everett, WA	1430	U
Ohio Plate Glass Company; Jefferson, TX	1286	U
Ohio Plate Glass Company; Lewisburg, OH	185	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
PPG Canada, Inc.; Owen Sound, Ontario, Canada	209	U
San Jacinto Glass Company; Houston, TX	1293	U
Shaw Glass Company, Inc.; South Easton, MA	1034	U
Southern Wholesale Glass, Inc.; Marietta, GA	1230	U
Spectrum Glass Company; Clinton, NC	1080	U
Sunbelt Glass, Inc.; Tulsa, OK	1454	U
Sunglas Products, Inc.; Claremore, OK	1366	U
Tempered Glass, Inc.; Atlanta, GA	862	U
Tempered Glass Corporation; Tampa, FL	1396	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 Aluminum Company); Warrendale, PA	1310	U
Vidrierias de Llodio, S.A.; Alava, Spain	1445	U
Viracon, Inc.; Owatonna, MN	1403	U
Virginia Glass Products Corporation; Martinsville, VA	12	U

1/4 inch tempered transparent glass

ACI Glass Products, Inc.; Santa Fe Springs, CA	638	U
AFG Industries, Inc.; Greenland, TN	89	U
AFG Industries, Inc.; Kingsport, TN	24	U
Advance Coating Technology, Inc.; Franklin, TN	1277	U
Chamberlain; Malvern, AR	1378	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1165	U
Downey Glass Company, Inc.; Downey, CA	807	U
Downey Glass Company, Inc.; Los Angeles, CA	813	U
Elgin Precision Glass Company, 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 Motor Company; Dearborn, MI	730	U
Fulton Glass Industries, Inc.; Red Oak, GA	1132	U
Gateway Industries; Rogers, AR	1357	U
General Glass Corporation; Denver, CO	1182	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
Hordis Brothers, Inc.; Warrenton, MO	1448	U
Howe-Martz Glass Company; Detroit, MI	1268	U

SGCC NO.	MAX. SIZE CERTIFIED
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TEMPERED TRANSPARENT GLASS**1/4 inch tempered transparent glass - continued**

LOF Glass; Laurinburg, NC	847	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 Company; Houston, TX	1294	U
Shaw Glass Company, Inc.; South Easton, MA	1035	U
Southern Wholesale Glass, Inc.; Marietta, GA	1231	U
Spectrum Glass Company; Clinton, NC	1081	U
Sunbelt Glass, Inc.; Tulsa, OK	1455	U
Sunglas Products, Inc.; Claremore, OK	1367	U
Temp-Tech Industries, Inc.; Chicago, IL	986	U
Tempered Glass, Inc.; Atlanta, GA	863	U
Tempered Glass Corporation; Tampa, FL	832	U
Tempered Glass Int'l., Inc.; Union City, CA	1205	U
Tempglass Eastern, Inc.; Norcross, GA	982	U
Tempglass, Inc.; Perrysburg, OH	1420	U
Tempglass Southern, Inc.; Grand Prairie, TX	1044	U
Texas Tempered Glass Company; Houston, TX	137	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1311	U
Viracon, Inc.; Owatonna, MN	1404	U
Virginia Glass Products Corporation; Martinsville, VA	14	U

5/16 inch tempered transparent glass

LOF Glass; Laurinburg, NC	848	U
Spectrum Glass Company; Clinton, NC	1082	U

TEMPERED TRANSPARENT GLASS**3/8 inch tempered transparent glass**

ACI Glass Products, Inc.; Santa Fe Springs, CA	639	U
AFG Industries, Inc.; Greenland, TN	90	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1166	U
Downey Glass Company, Inc.; 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
Fulton Glass Industries, Inc.; Red Oak, GA	1212	U
Glasstemp, Inc.; Bensenville, IL	1383	U
Howe-Martz Glass Company, Detroit, MI	1269	U
LOF Glass; Laurinburg, NC	849	U
San Jacinto Glass Company; Houston, TX	1295	U
Shaw Glass Company, Inc.; South Easton, MA	1036	U
Southern Wholesale Glass, Inc.; Marietta, GA	1232	U
Spectrum Glass Company; Clinton, NC	1083	U
Sunbelt Glass, Inc.; Tulsa, OK	1456	U
Sunglas Products, Inc.; Claremore, OK	1375	U
Tempered Glass, Inc.; Atlanta, GA	865	U
Tempered Glass Corporation; Tampa, FL	833	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 Co.; Houston, TX	1408	U
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1312	U
Virginia Glass Products Corporation; Martinsville, VA	93	U

	<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
TEMPERED TRANSPARENT GLASS		
1/2 inch tempered transparent glass		
ACI Glass Products, Inc.; Santa Fe Springs, CA	640	U
Colonial Mirror and Glass Corporation; Brooklyn, NY	1167	U
Downey Glass Company, Inc.; 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
Fulton Glass Industries, Inc.; Red Oak, GA	1134	U
The Glass Factory, Inc.; Ronkonkoma, NY	1461	U
Glasstemp, Inc.; Bensenville, IL	1384	U
Howe-Martz Glass Company, Detroit, MI	1270	U
LOF Glass; Laurinburg, NC	850	U
San Jacinto Glass Company; Houston, TX	1296	U
Shaw Glass Company, Inc.; South Easton, MA	1037	U
Southern Wholesale Glass, Inc.; Marietta, GA	1406	U
Spectrum Glass Company; Clinton, NC	1084	U
Sunbelt Glass, Inc.; Tulsa, OK	1457	U
Tempered Glass, Inc.; Atlanta, GA	866	U
Tempered Glass Corporation; Tampa, FL	834	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	
TRACO (Three Rivers Aluminum Company); Warrendale, PA	1313	U
Virginia Glass Products Corporation; Martinsville, VA	94	U
5/8 inch tempered transparent glass		
Spectrum Glass Company; Clinton, NC	1085	U
3/4 inch tempered transparent glass		
Colonial Mirror and Glass Corporation; Brooklyn, NY	1341	U
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 Corporation; Martinsville, VA	95	U
TEMPERED PATTERN GLASS		
1/8 inch tempered pattern glass (shallow patterns)		
ACI Glass Products, Inc.; Santa Fe Springs, CA	1226	U
AFG Industries, Inc.; Greenland, TN	587	U
AFG Industries, Inc.; Kingsport, TN	141	U
Downey Glass Company, Inc.; Downey, CA	808	U
Gateway Industries; Rogers, AR	1358	U
1/8 inch tempered pattern glass (medium patterns)		
Downey Glass Company, Inc.; Downey, CA	809	U
Vidrierias De Llodio, S.A.; Alava, Spain	1407	U
1/8 inch tempered pattern glass (shallow patterns)		
AFG Industries, Inc.; Kingsport, TN	1414	U
5/32 inch tempered pattern glass (shallow patterns)		
Gateway Industries; Rogers, AR	1359	U
Gemtron Corporation; Sweetwater, TN	2001	U
Hamilton Glass Products, Inc.; Vincennes, IN	1386	U
Southern Wholesale; Marietta, GA	1428	U
Vidrierias De Llodio, S. A.; Alava, Spain	1331	U

<u>SGCC NO.</u>	<u>MAX. SIZE CERTIFIED</u>
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TEMPERED PATTERN GLASS**3/16 inch tempered pattern glass (shallow patterns)**

AFG Industries, Inc.; Greenland, TN	1139	U
AFG Industries, Inc.; Kingsport, TN	1143	U
Downey Glass Company, Inc.; Downey, CA	810	U
Downey Glass Company, Inc.; Los Angeles, CA	1114	U
Falconer Glass Industries, Inc.; Falconer, NY	1330	U
Fulton Glass Industries, Inc.; Red Oak, GA	1327	U
Hamilton Glass Products, Inc.; Vincennes, IN	1387	
Howe-Martiz Glass Company, Detroit, MI	1344	U
Shaw Glass Company, Inc.; South Easton, MA	1299	U
Southern Wholesale Glass, Inc.; Marietta, GA	1415	U
Tempered Glass Corporation; Tampa, FL	1329	U
Tempglass Eastern, Inc.; Norcross, GA	1338	U
Virginia Glass Products Corporation; Martinsville, VA	1275	U

3/16 inch tempered pattern glass (deep patterns)

Gateway Industries; Rogers, AR	1394	U
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7/32 inch tempered pattern glass (shallow patterns)

Downey Glass Company, Inc.; Downey, CA	811	U
Downey Glass Company, Inc.; Los Angeles, CA	817	U
Flex-Temp., Inc.; Irving, TX	1440	U
Tempered Glass Corporation; Tampa, FL	1210	U

LAMINATED GLASS**3/16 inch laminated transparent glass**

Lear Siegler, Inc.; Wichita, KS	1360	U
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LAMINATED PATTERN GLASS**3/16 inch laminated pattern glass (shallow patterns)**

Lear Siegler, Inc.; Wichita, KS	1343	U
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0.080 through 0.125 inch acrylic

Flex-O-Glass, Inc.; Dixon, IL	118	U
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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 executive 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 Corporation
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 designated by 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 with 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 specimmens 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 langley (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 langley (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:

Name

Company

Address

City

State

Zip Code

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. Bill D. Penue
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: 516-266-5101

Southwestern Laboratories, Inc.
2900 Cullen Street; P.O. Box 1379
Fort Worth, TX 76101
Attention: Mr. Wayne Tessener
Telephone: 817-332-5181

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



safety glazing certification council
ETL TESTING LABORATORIES, INC.
Industrial Park • Route 11
Cortland, NY 13045-0950

ADDRESS CORRECTION REQUESTED

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U.S. POSTAGE
PAID
PERMIT 37
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