

January 1, 2006

# Safety Glazing Certification Council Certified Products Directory (CPD)

Certification Program for safety glazing materials found to be in compliance with one or both of the following specifications:

"American National Standard for Safety Glazing Materials used in Buildings - Safety Performance Specifications and Methods of Test: ANSI Z97.1-2004"

Copies of ANSI Z97.1-2004 may be obtained by calling (212) 642-4900, writing the following address or visiting the following website:

American National Standards Institute  
11 W 42nd St., #13th Fl  
New York, NY 10036-8002  
<http://webstore.ansi.org>

~ ~ ~

"Consumer Products Safety Commission Safety Standard for Architectural Glazing Materials - at Title 16, Part 1201 of the Code of Federal Regulations: 16 CFR 1201"

Copies of 16 CFR 1201 may be obtained by calling (202) 512-1800, writing the following address or visiting the following website:

Superintendent of Documents  
PO Box 371954  
Pittsburg, PA 15250-7954  
[www.access.gpo.gov](http://www.access.gpo.gov)

~ ~ ~

Additional copies of this publication may be obtained by contacting the SGCC® office.

PO Box 730  
Sackets Harbor, NY 13685  
Phone: (315) 646-2234 Fax (315) 646-2297  
[staff@amscert.com](mailto:staff@amscert.com)

Visit our website @ [www.sgcc.org](http://www.sgcc.org)

SGCC® information and guidelines are included in the twice per year printing of the certified products directory, or are available from SGCC® upon request. Re-printing of this information in any other manual, material or document without the written permission of SGCC® is in conflict with the desire of SGCC®, and should not be interpreted as being endorsed by or affiliated with SGCC®.

Safety Glazing Certification Council © 2006

**~ TABLE OF CONTENTS ~**

	<b>PAGE</b>
ANSI Z97.1-2004 .....	1
CPSC 16 CFR 1201 .....	1
Meetings of the Certification Committee .....	3
Roster .....	3
Program Concept .....	8
Procedural Guide .....	9
Certification Guidelines and Interpretations .....	13
SGCC® Label Requirements .....	24
CPSC Act Labeling Requirements .....	25
Classified Tempered Glass Patterns .....	26
Certified Products (Numerical Sequence) .....	27
Certified Products (Alphabetically By Plant ) .....	34
Certified Products Key .....	44
Certified Products (By Product Type) .....	45
SGCC® Approved Laboratories .....	65

January 1, 2006

**~ MEETINGS OF THE CERTIFICATION COMMITTEE ~**

The Certification Committee of the Safety Glazing Certification Council meets annually. Minutes of these meetings may be obtained by writing to the Administrative Manager of the Safety Glazing Certification Council (SGCC®).

Certification in this directory is current as of the date of issue, however, products may be certified or have certification removed from time to time. For the most current information, please contact the Administrative Manager of SGCC®.

Any questions, comments, or requests for copies of this directory should be directed to the Administrative Manager of the Safety Glazing Certification Council:

**~ ADMINISTRATION ~**

Administrator: Administrative Management Systems, Inc. (AMS)  
PO Box 730  
Sackets Harbor, NY 13685  
Telephone: 315-646-2234  
Fax: 315-646-2297  
E-mail: staff@amscert.com  
Web-site: www.sgcc.org

Administrative Staff: John G. Kent, Administrative Manager  
Brandy L. Sonnenburg, Administrative Assistant

**~ ROSTER ~**

**~ SGCC® BOARD OF DIRECTORS ~**

**~ SGCC® OFFICERS ~**

President	Richard Paschel
Vice President	Bill Nugent
Secretary	June Willcott
Treasurer	Elaine S. Rodman

**~ REPRESENTING PUBLIC INTEREST ~**

Mr. William Nugent  
Wiss, Janney, Elstner Associates, Inc.  
330 Pfingsten Road  
Northbrook, IL 60062-2095  
Telephone: 847-272-7400  
Fax: 847-291-9599

Ms. Elaine S. Rodman  
The Rodman Group  
1100 Middle Road  
Glenshaw, PA 15116  
Telephone: 412-486-6384  
Fax: 412-486-6387

Ms. June Willcott  
Willcott Engineering, Inc.  
1727 North State Road 7  
Margate, FL 33063  
Telephone: 954-975-7979  
Fax: 954-975-7509

Mr. Donald Vild  
Donald J. Vild Associates  
P.O. Box 7514  
Oregon, OH 43616  
Telephone: 419-693-8929  
Fax: 419-693-8702

Mr. Peter Weismantle  
Skidmore, Owings & Merrill LLP  
224 S. Michigan Avenue, Ste. 1000  
Chicago, IL 60604  
Telephone: 312-360-4773  
Fax: 312-360-4550

January 1, 2006

**~ REPRESENTING INDUSTRY ~**

Richard Paschel  
Temperbent Glass, LP  
12400 S. Laramie Ave.  
Chicago, IL 60658  
Phone: 708-388-4300  
Fax: 708-388-0952

Mr. Kevin Olah  
Guardian Industries Corp.  
Office of Homologation  
2300 Harmon Rd.  
Auburn Hills, MI 48326  
Phone: (248) 340-2141  
Fax: (248) 340-2239

Mr. Mark Cody  
AFG Inds., Inc.  
1400 Lincoln St.  
P.O. Box 929  
Kingsport, TN 37662  
Phone: 423-229-7200  
Fax: 423-229-7160

Mr. Lyle Krohnberg  
Viracon, Inc.  
800 Park Dr.  
PO Box 990  
Owatonna, MN 55060  
Phone: (507) 451-9555  
Fax: (507) 444-3555

Mr. Tim Moore  
PDC Glass & Metal Services  
100 Business Center Dr.  
Cheswick, PA 15024  
Phone: (724) 274-9050  
Fax: (724) 274-9449

~ Honorary Non-Voting Lifetime Member ~  
Mr. Norman Nitschke

**~ 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 Paschel  
SGCC® President  
c/o Temperbent Glass  
12400 S. Laramie Ave.  
Chicago, IL 60658  
Telephone: 708-388-4300

Mr. Mark B. Cody, Chairman  
SGCC® Certification Committee  
c/o AFG Industries  
P.O. Box 929  
Kingsport, TN 37662  
Telephone: 423-229-7222

Mr. John G. Kent  
Program Administrator  
Administrative Management Systems, Inc. (AMS)  
P.O. Box 730  
Sackets Harbor, NY 13685  
Telephone: 315-646-2234

**~ LEGAL COUNSEL ~**

William M. Hannay, Esq.  
Schiff, Hardin & Waite  
7200 Sears Tower  
Chicago, IL 60606  
Telephone: 312-258-5617  
Fax: 312-258-5600

**~ FINANCIAL AUDITORS ~**

David Bowles  
Kane, Bowles & Moore  
209 Second St.  
Liverpool, NY 13088  
Telephone: 315-451-6167  
Fax: 315-451-6093

*SGCC Certification Committee*

<b>Licensee</b>	<b>Primary Member</b>	<b>First Alternate</b>	<b>Second Alternate</b>
ACI Distribution	Mike Grossman	Rick Dashley	
AFG Fabrication Commercial	Mark Cody	Thomas Mewbourne	
AFG Glass	Mark Cody	Thomas Mewbourne	
All Team Glass & Mirror, Ltd.	Lee Timoll	Joseph Montiano	
Amsco Windows	Joe Jonely		
Anthony International	Dennis Kato	Mark Sandnes	
Arch Aluminum & Glass Co.	Cliff Monroe	Leon Silverstein	Bob Martin
Arch Ohio, Inc.	Mike Blankenship		
Architectural Safety Glass	George Sutorka		
Bendheim Wall Systems	Robert Jayson		
Berkowitz, J.E.	Jim Stinsman		
Binswanger Mirror	Benny Walker		
Bronco Industries, Inc.	Bronson Lam		
Cameron Glass, Inc.	John Alajaji	Troy Gillion	
Cardinal IG	Robert Spindler	Oak Moser	
Cat i Manufacturing, Inc.	Chris Alder		
Changshu Hard Glass Co., Ltd.	Zinger Yu		
Changshu Zhongcheng Bldg. Mat. Co.	Denise Lu		
Cheil Glass Industrial Co., Inc.	Yong Kwang Jung		
Chicago Tempered Glass, Inc.	Adam Kaczynski		
Cho Kwang Glass Co. Ltd.	Yong Kim		
Coastal Glass Distributors	Chuck Hammer		
Colonial Mirror & Glass Corp.	A. Alex Weiner	George Weiner	
Commercial Insulating Glass Co.	Jeff Winsler		
Consolidated Glass Corp.	Carl Carmen	Louis Merryman	
Contour Industries, Inc.	Scott Stidham	Lee Mulkey	
Coral Industries	Patrick Conner		
Craftsman Tempered Glass	Bob Larson		
Day Specialties Corporation	Bill Bartlett		
Desert Glass Products	Jerome Ellis		
Dong Sung Glass Korea, Co., Ltd.	Mike Cho		
Dongli Tempered Glass Co., Ltd.	Li JianGuo		
Downey Glass Industries, LLC	Hugh Higgins		
Eckelt Glas GmbH	Christian Eckelt		
Edge Seal Technologies	Mark Hutchinson		
Efco Corp.	Dwayne Jones		
Engineered Glass Products, L.L.C.	Goran Radojevich		
FLT Glass	Dan Haney		
FTG of NC, LLC	John Joynt		
FuNing HuaChangLong Glass Co. Ltd.	Jiashu Xu		
Galaxy Glass Corp., Inc.	Eugene Negrin	John O'Keefe	
Gemtron-Vincennes	Robert A. Moss	Robert B. Ryan	Steven J. Hutson
GGI Glass Distributors Corp.	Bud Hudgins	David S. Baiik	
Glass Dynamics, Inc.	Conrad Lankford		
Glass Innovations LLC	Robert Schwartz		
Glass South Africa, LTD Parow	Stephen Simons		

## SGCC Certification Committee

<u>Licensee</u>	<u>Primary Member</u>	<u>First Alternate</u>	<u>Second Alternate</u>
Glass, Inc.	Tom Litterest		
Goldray Industries Ltd.	Lee Mulligan		
Grand Glass	Butch Ampil		
Guardian Glass of Rogers Corp.	Henry A. Gorry	Daphinne Pedreschi	Kevin B. Olah
Guardian Industries Canada Corp.	Henry A. Gorry	Daphinne Pedreschi	Kevin B. Olah
Guardian Industries Corp.	Henry A. Gorry	Daphinne Pedreschi	Kevin B. Olah
Haida Safety Glass Ltd.	David Zhu		
Jiangyin Jingcheng High Qlty Glass	Robert Deeb		
Kohler Company	Fred Bruce		
Laurier Glass Ltd.	Caroline Mercier		
Mid Ohio Tempering	Jack Deyo	Dean Mead	Tim Moore
Milgard Tempering, Inc.	Jeff Tregoning	Mike Campbell	
Mirror Factory	Marlan Carlson	Tom Carlson	Lance Smith
MirrorCrafters Custom Beveling Inc.	Edward Fisher		
Multiver	Luc Rheume		
Nashville Tempered Glass Corp.	Kevin Moore		
Oldcastle Glass	Richard Wright	John Bush	Robert Williams
Patio Enclosures, Inc.	Jack Garforth	Craig Cox	
PDC Glass & Metal Services	Tim Moore	Mark Francart	Jim Masterman
PGT Industries	Rupam Modi		
Pilkington Australia Dandenong Works	Bill Joyce		
PPG Inds., Inc.	Mike Bitterice	Bob Fiedor	
Prelco, Inc.	Stephane Mercier		
PT Surya Adhitia Fortuna Glass	Robert Deeb		
PT Tunggal Majuasri Glass	Budiawan Jusmin		
PT. Sinar Rasa Kencana	Robert Deeb		
Qinhuangdao Jixiang Glass Industry	Jixiang Liu		
Qinhuangdao Topgem Glass Co., Ltd.	Ms. Xin Zhengzheng		
Quaker Window Products, Inc.	Curtis Weavers		
Quality Glass & Mirror, Inc.	Tom Markowski		
Republic Windows & Doors, Inc.	Arnold Jagiello	Tim Widner	Brian Locke
Saint-Gobain Glass Mexico SA de C.V.	J. Martin Vega Quiariate		
Shanghai Yaohua Pilkington Glass	Sun Dahai		
Shaw Glass Co.	Frederic P. Shaw	Troy Johnson	Bill Connell
SIGCO, Inc.	David A. McElhinny		
Simonton Windows	Chuck Anderson		
Sovis North America, Inc.	Mark A. Durfield	Luc-Michel Riblier	
Specialty Building Products	Tom Woods		
Spec-Temp, Inc.	Tim Peffley		
Swift Glass Co., Inc.	Daniel J. Burke	Kathleen B. Schweizer	Charles Burke
Syracuse Glass Company	John Dwyer		
Techni-Glass, Inc.	Pat Murphy	Jason Hooven	
Tecnoglass S.A.	Christian Daes		
TemperBent Glass, LP	Donald Sokol	Richard Paschel	Kevin Miccichi
Tempered Glass, Inc.	Douglas Sampsel	Joel Wrenn	Tim Moore
TianJin Dong Sung Glass Co., Ltd.	Sang Kuy Lee		
Traco (Three Rivers Alum)	William R. Deuschle	Brad Fello	
Triple Sea! Ltd.	Victor Babooskins		

January 1, 2006

*SGCC Certification Committee*

<u>Licensee</u>	<u>Primary Member</u>	<u>First Alternate</u>	<u>Second Alternate</u>
United Plate Glass Co., Inc.	Darin Vietmeier		
Unitex Glass (Xiamen) Co., Ltd.	Chris Snyder		
Vetzeria Valentini S.R.L.	Claudio Valentini		
Vidrieria Argentina, S.A.	Ernesto Giraldi		
Vidrios Lirquen S.A.	Alejandro Flores		
Viracon, Inc.	Lyle Krohnberg	Peter Anderson	Roger Skluzacek
Virginia Glass Products Corp.	Benjamin Beeler	W. Chris Beeler	
Vitemco S.A. - Glasswall, Inc.	Luis Russi		
Vivinco, Inc.	Michael Duncan	Roxanne McFalls	
Westshore Glass	Bill Bellis	Todd Elozory Tucker Kruse	
XYG Glass (Div. of Xinyi Grp Glass Co.,	Daniel Lau	Belinda Lau	
Zhangjiagang Weiyu	Zhengdong Xu		

**Certification Committee Chairman - Mark Cody**

**Member by virtue of being a director**

Public Interest	William Nugent
Public Interest	Elaine Rodman
Public Interest	Donald Vild
Public Interest	June Willcott
Public Interest	Norman Nitschke
Public Interest	Peter Weismantle

**~PROGRAM CONCEPT~**

The Safety Glazing Certification Council (SGCC®) is a non-profit corporation, established in 1971 by manufacturers of safety glazing products, building code officials, and others concerned with public safety.

SGCC® maintains a program which provides for the certification of safety glazing materials found to be in compliance with one or both of the following specifications:

American National Standard for Safety Glazing Materials used in Buildings - Safety Performance Specifications and Methods of Test: ANSI Z97.1-2004

Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials - codified at Title 16, Part 1201 of the Code of Federal Regulations: 16 CFR 1201

These specifications subject safety glazing materials, used in buildings and architectural products, to practical tests designed to reduce or eliminate unreasonable risk of death and injury when safety glazing material is broken by human contact.

The specification(s) to which a safety glazing material is certified by SGCC®, is at the direction of the licensee.

SGCC® responsibilities are threefold: to conduct an independent routine sampling and testing program; to approve and register the form of a licensee's label; and to withdraw the licensee's authority to use that label if certified products do not meet specification(s).

Management and control of SGCC® is vested in a board of directors, half representing industry and half representing the public interest. To prevent industry dominance of SGCC® actions, half the voting power of the board resides in the public interest directors regardless of the number of directors present at a meeting.

The certification program uses approved testing laboratories under the supervision of a qualified Administrator, retained by and responsible to SGCC®, who is unaffiliated with any licensee of safety glazing materials.

The licensee of a product listed in this directory has certified that the labeled material complies with the applicable specification(s). Compliance of a certified product with the applicable specification(s) is checked periodically by an approved testing laboratory under the supervision of SGCC®.

All manufacturers of safety glazing products are eligible and encouraged to apply for SGCC® certification. Products may also be licensed by non-manufacturers. (See "Who Can Become a Licensee.") However, products are not certified until a test to the applicable specification(s) conducted at an approved testing laboratory indicates compliance, the SGCC® certification invoice is paid, and SGCC® License Agreements are properly executed.

Once certified by SGCC®, a product is assigned an exclusive certification number to identify it and the plant at which it is made. After which, to ensure continued adherence to the specification(s), SGCC® independently selects, at least twice in each year, samples during unannounced visits to the manufacturing plant or randomly from the market place to be tested to the applicable specification(s). Consequent to a test result showing compliance with the applicable specification(s) SGCC® authorizes the continued use of the certification number and the product listing in this directory.

This directory is divided into four basic listings: the first is by numerical sequence of certified product numbers listing the licensee holding that number; the second is of manufacturing licensees listed alphabetically by plants and the approved products manufactured at those plants; the third is by non-manufacturing licensee's and their approved products; and the fourth is by product type listing all licensees and locations approved for each product type. There is also an alphabetical listing, by manufacturers, illustrating a label typical of the licensee. The Table of Contents lists various procedural and administrative information, as well as information as to where officers and directors may be located. Upon request, information from SGCC® concerning a statement of procedures or copies of minutes are available to manufacturers, public interest groups, and individuals.



## **FOREWORD**

The acceptance of a certified safety glazing material comes from the conviction such certification assures a high level of safety and quality, and that the integrity of the identifying mark or certification label is reliably maintained by a competent certifying agency.

Both ANSI Z97.1 and 16 CFR 1201 provide sound technical basis for a high level of safety. With the addition of independent administration, plus periodic routine sampling and product evaluation, a program of product certification is maintained which provides an independent third-party certification and testing program. The Certification Program described herein is predicated upon the concept of independent and impartial administration of the certification procedures which are incorporated in the SGCC® License Agreement.

The SGCC® License Agreement is the governing document for the operation of the Certification Program. The Procedural Guide, which is not an extension of this document, is for information and guidance and serves to describe administrative procedures and to ensure the uniform and equitable operation of the Certification Program.

## **GENERAL INFORMATION**

### **THE CERTIFICATION CONCEPT**

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

To buyers, specifiers, code officials and users, the SGCC® certification label offers the licensee assurance his safety glazing material has been produced in conformance to ANSI Z97.1 and/or 16 CFR 1201.

Federal law, many state statutes, municipal ordinances, and building codes require glazing materials installed in certain defined locations comply with ANSI Z97.1 and/or 16 CFR 1201.

### **WHO CAN BECOME A LICENSEE?**

Any manufacturer of safety glazing materials or any party contracting for the manufacture of safety glazing materials is eligible, on a voluntary basis, to become a licensee.

### **WHO CONDUCTS THE PROGRAM?**

The Safety Glazing Certification Council, a non-profit corporation, is the sponsor of the Certification Program. SGCC® supervises the Certification Program under which its Administrator periodically checks and reports compliance of the products having the SGCC® certification label with the requirements of ANSI Z97.1 and/or 16 CFR 1201.

## **ADMINISTRATION**

Administrative Management Systems (AMS), is the independent Administrator of the Certification Program. AMS maintains the SGCC® office of certification and conducts 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 of safety glazing material:

- a) The applicant signs two copies of the SGCC® License Agreement (including notarization of the Affidavit, Appendix A) and sends these to SGCC®. SGCC® will countersign all copies and return one to the applicant. Non-manufacturing applicants must include the location and appropriate signatures of their manufacturer for each location.

January 1, 2006

- b) The applicant directs an SGCC® approved testing laboratory, of its own choosing, to send SGCC® one copy of a valid test report indicating the “initial” or “prototype” samples submitted for testing are in full and complete compliance with ANSI Z97.1 and/or 16 CFR 1201.
- c) The applicant sends to SGCC® the six-month certification fee for each item to be certified. This fee must be submitted within six months of completion of item (b). Failure to do so will result in the need to resubmit item (b). (Revised 10/22/93)
- d) The applicant sends to SGCC® a Certificate of Insurance naming SGCC as an additional insured party on a products liability insurance policy.

Having received all of the above items, SGCC® sends to the licensee the notice of product certification which includes an SGCC® certification number. This number must be incorporated into the permanent label affixed to each piece of certified safety glazing material. The certified item will be listed in the next edition of the Certified Products Directory.

### **QUALITY ASSURANCE PROGRAM**

SGCC® requires licensees to have a working quality assurance program for the fabrication of safety glazing. Compliance to quality assurance requirements will be validated at the first plant inspection after products are certified. Adherence is verified during twice per year plant visits. These requirements were adopted to improve the overall quality of safety glazing products in the program. A licensee’s quality assurance program, as a minimum, must have the following elements:

- a) a Quality Manual,
- b) a designated point of contact,
- c) written procedures, and
- d) regular production product testing.

### **HOW THE CERTIFICATION PROGRAM WORKS**

Safety glazing materials must meet or exceed the applicable specification(s) before they can be certified by SGCC®.

All tests are conducted by SGCC® approved testing laboratories. All laboratories, whose test reports are utilized by the Certification Program, shall be approved by the SGCC® Certification Committee. Initial or prototype tests are performed at an approved testing laboratory selected by the licensee. An approved testing laboratory selected with the concurrence of the Administrator by the licensee, tests routine evaluation samples.

### **ADMINISTRATOR AUTHORIZES CERTIFICATION**

As sole judge of compliance with the applicable specification(s), 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, within the limits of the product size tested. If 34 by 76 inches is the size of the initial or prototype test sample, certification is extended to all sizes and the permanent label contains the letter “U”, designating unlimited size. The letter “L” contained within the permanent label denotes certification is limited to the width and length of the initial or prototype test sample.

### **PRODUCTS LISTED IN CERTIFIED PRODUCTS DIRECTORY**

Approved products are listed in a Certified Products Directory. The directory is published every six months and is sent to door, sash and building products manufacturers, glazing contractors, home builders, architects, regulatory agencies, code-making groups, etc. Directory listings contain the licensee's name, product description and examples of a label typical of that permanently affixed by a licensee to each piece of safety glazing material certified by SGCC®.

The Administrator selects, at least twice in each year, samples of certified safety glazing material to be tested to the applicable specification(s). These samples are selected during unannounced visits to the manufacturing plant or from the market place.

## **COMPLIANCE SAFEGUARDS**

### **HOW IS COMPLIANCE ASSURED**

Any certified product determined, in the course of routine sampling and evaluation, not in compliance with the applicable specification(s), is subject to the removal of certification. The licensee is given 30 days in which to demonstrate to the satisfaction of the Administrator compliance, and if not certification is automatically withdrawn 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 a written complaint and 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 cost 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 by SGCC®, may be voluntarily withdrawn from the Certification Program by a licensee at any time.

## **COSTS**

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

The licensee pays, in advance, all projected fees for future routine evaluations to SGCC® on a six-month basis. A licensee is invoiced for each certified item separately listed in the Certified Products Directory.

The certification period is from January 1 - June 30 or July 1 - December 31. The licensee's initial invoice will be determined by the payment schedule as is listed below. All subsequent invoices will be for a full certification period.

<u>DATE</u>	<u>ADMINISTRATIVE/CONTINGENCY FEE</u>	<u>TEST FEE</u>
January 1 - March 31	100%	None
April 1 - June 30	50%	None
July 1 - September 30	100%	None
October 1 - December 31	50%	None

No testing is necessary during the initial six-month period if prototype testing took place within 30 days of initial certification. Normal inspection may take place during this initial period, however.

Initial certification during the first three months of the initial six-month period will require a selection in the first three months of the following six-month certification period.

## **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.

January 1, 2006

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, effective from the date of its execution, has a validity of six months (adjustable to a January 1 to June 30 or a July 1 to December 31 basis) and, unless revoked by SGCC® for causes set forth in the document, is automatically renewed for successive additional periods of six months, unless either party gives notice at least 60 days prior to the date of expiration that cancellation is requested.

Upon its proper execution and acceptance by SGCC®, the Pre-issued Certification Number Bond informs a licensee of the certification number of an item to be certified in the future. If the licensee marks production with the certification number prior to actual certification, the bond is forfeited to SGCC®.

Upon its proper execution and acceptance by SGCC®, the test release bond permits the continuation of certification of an item when 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 AMS governs the relationship between SGCC® and AMS, 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 applicable specification(s);
- d) inspects and approves all in-plant and test laboratory test facilities for use in this Certification Program (test laboratories are approved by the SGCC® Certification Committee);
- e) publishes and mails the SGCC® Certified Products Directory on or about January 1 and July 1 of each year;
- f) handles all routine clerical duties of SGCC® with respect to certification matters;
- g) acts as SGCC® treasurer, invoices licensees, maintains a bank account, and disburses funds (fiscal reports are made to the SGCC® Certification Committee);
- h) furnishes all testing, except for initial or 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®.

### **CERTIFIED PRODUCTS DIRECTORY**

This directory contains a listing of the certified safety glazing materials of each licensee.

### **CERTIFICATION LABEL**

The certification label, containing a number that refers to the listing in the Certified Products Directory, is permanently affixed to each piece of certified safety glazing material by the licensee. The listing in the directory provides a complete product description including licensee's name, location, etc.

### **PROGRAM RESPONSIBILITY**

The SGCC® Board of Directors has overall responsibility for the well being and acceptance of the Certification Program by industry, building officials and the public. It also bears corporate legal responsibility.

January 1, 2006

The SGCC® Certification Committee has the responsibility for the general procedure and policy pertaining to the conduct of the Certification Program. As a part thereof, it:

- a) establishes certification "guidelines";
- b) determines, where a question is raised by a licensee or the Administrator, the applicability of the specification(s) in specific situations;
- c) approves testing laboratories;
- d) determines which specifications are to be designated effective for the purposes of product certification and the date or dates on which they become effective; and
- e) recommends to the SGCC® Board of Directors changes to be made in the license agreement.

## **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 June 30 and July 1 to December 31 basis.

#### G.2

Tests for initial compliance of safety glazing materials to ANSI Z97.1 and/or 16 CFR 1201 will be accepted from any testing laboratory approved by the SGCC® Certification Committee. (Revised 4/19/04)

#### G.3 (ANSI ONLY)

Paragraph (1) Section 5.1.4 of ANSI Z97.1-2004 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. Paragraph (5) is intended to apply to plastics. Paragraph (6) is intended to apply to laminated and organic coated glass. (Revised 10/21/05)

#### G.4

For insulating glass units to be considered safety glazing material, each lite 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.

#### G.6

- a) All test specimens, except prototype samples, must be marked with the correct SGCC® permanent label prior to testing in order to be considered a valid sample. It is the responsibility of the licensee to ensure the specimens being represented to the Administrator's representative are properly labeled. The Administrator shall construe the absence of a correct permanent label as a failure to comply with the specifications. In such case of noncompliance, Sections a, c, and e of G.11 shall be followed. (Revised 3/16/90)
- b) The laboratory shall verify that the label has the correct SGCC® number, designation of the applicable specification(s) and CPSC categories, nominal thickness, and certified size designation (U or L).
- c) The testing laboratory is to advise the Administrator of any specimen to which the correct SGCC® permanent label is not affixed. The testing laboratory 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) Effective with the first of 2006 (F06) certification period, the SGCC® permanent label must contain ANSI Z97.1-2004 in order to be considered a correct permanent label for purposes of Guideline G.6. (Revised 10/21/05)

G.7 (ANSI ONLY)

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 Z97.1-2004 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

a) (ANSI ONLY)

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 Z97.1-2004 are exposed to selection for testing.

b) (CPSC ONLY)

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 from 24 inches by 30 inches up to 34 inches by 76 inches shall be valid samples when independently obtained by the Administrator for purposes of routine evaluation. (Revised 4/28/00)

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 is permitted six 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 said specimens to comply with the specifications and the Administrator shall act as provided for in license agreement A.6.

G.11

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

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

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

- b) Within three 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.

January 1, 2006

- e) All costs related to G.11 are to be borne by the licensee.
- f) If the retest procedure is required, all routine inspections and sample selections will continue. However, routine testing for the next period will be suspended pending the outcome of the retest procedure. If the product is decertified, the prepaid fee for routine testing for the next period (but not the Administrative and Contingency fees) will be refunded.

#### G.12

If a licensee who manufactures or contracts for the manufacture of a certified product outside the United States and Canada 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 (Deleted 5/6/99)

#### G.14

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. (Modified 10/20/89)

The Administrator shall initiate de-certification procedures on products for a given licensee's failure to pay any monies due to SGCC® within 60 days of invoice date. (Reference License Agreement A.2, A.7, A.12, and B.6.)

The invoice procedures will be as follows:

- a) Semi-Annual SGCC® invoices will be mailed on or before April 1 and October 1 of each year. Payment is due May 1 and November 1 respectively.
- b) For all overdue invoices as of May 1 and November 1, a phone call will be made as a reminder and to ensure that the licensee received the invoice. A letter will follow the phone call.
- c) For all overdue invoices as of May 15 and November 15, an overnight letter, return receipt requested, will be sent warning of de-certification if payment is not received within 15 days.
- d) Letters of de-certification will be sent certified mail fifteen (15) days from the mailing of the overnight letter if payment is not received. With de-certification, a licensee will no longer be an SGCC® participant and its certified products will not appear in the CPD.

#### G.15

In the situation where a licensee desires to re-certify 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 licensee shall pay the costs involved.

#### 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 one decimal place, and will have the suffix "mm." (Revised 4/19/04)

#### G.17

When testing to ANSI only or CPSC 16CFR only, four samples shall be required for impact testing. For all specimens that are not symmetrical from surface to surface, an equal number of specimens shall be impacted on each side. (Revised 10/28/99)

#### 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 smaller piece to bear a manufacturer's permanent label when finally installed in a building. When this is the case, 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® (refer to "SGCC Label Requirements" for additional information). (Revised 10/25/01)

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 (Deleted 10/20/89)

G.20

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

G.21

A pre-issued 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 pre-issued SGCC® certification number, if not used by the licensee, will be terminated 12 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 pre-issued certification number prior to formal certification then the bond shall be void.

G.22

In the case of wired glass (ANSI ONLY), 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 and/or 16 CFR 1201 for each alternate pattern proposed.
- c) The certification committee is provided with a 6 inch 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 the 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 two 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 two 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 be for a specific certification period and will expire at the end of that certification period but may be renewed by the licensee any number of times. Renewal is an obligation of the licensee and requires all steps listed herein. (Revised 10/25/01)



January 1, 2006

- 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 inches 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 (ANSI ONLY)

Effective with the first of 2006 (F06) certification period, SGCC shall only offer certification to ANSI Z97.1-2004. (Revised 10/21/05)

G.26

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

G. 27

A licensee at time of prototype submission should determine if certification shall be for CPSC, ANSI, or both (Composite). The licensee shall be issued only one SGCC® number for composite certification for each product. The licensee will submit four samples to be impact tested to ANSI Z97.1 and one specimen to be impact tested to 16 CFR 1201 (for all specimens that are not symmetrical from surface to surface a total of six impact test specimens must be submitted, four being tested to ANSI and two being tested to CPSC 16CFR 1201, with an equal number of specimens being impacted on each side). If any one specimen of the composite sample fails, the entire composite sample will be considered to have failed to comply with both standards. (Revised 10/28/99)

G. 28

The Administrator shall construe noncompliance with thickness tolerance 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 Specification ASTM C1036 shall apply.

G. 30

(Deleted 10/5/04)

G.31

(Deleted 10/5/04)

G.32 (CPSC ONLY)

When testing to Category II requirements, the Administrator shall select specimens greater than nine square feet in surface area.

G.33

If a manufacturing plant for which a product is certified is sold, the new owner or licensee must take the following steps to maintain certification:

- a) Notify the Administrator in writing of the sale as soon as possible (and in no event later than 60 days) after the sale;
- b) Execute a new license agreement, if the new owner is not already a licensee; and

- c) Exercise the option of maintaining the original licensee's SGCC® number(s) or requesting new numbers. If the new owner chooses to keep the existing number(s), the logo on the certified product must clearly distinguish it from the previous owners.

The Administrator shall arrange for the next routine sampling to take place within six months of the sale. If the plant is temporarily inoperative in connection with the sale, the provisions of G.23 shall also apply.

## **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.) When testing to the impact test criteria in 16 CFR 1201.4(a)(1), four specimens shall be tested or as noted in guideline G.27. (Revised 10/22/93)

### **T.2**

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

### **T.3**

Certification of regular tempered glass will also cover tinted, heat absorbing, and coated glasses of the same nominal thickness where the coating does not alter substantially the post-breakage behavior of the glass substrate. A "substantial alteration" is one that would render the coated tempered glass in non-conformance with the applicable safety glazing standards. Glasses of the same nominal thickness with a ceramic or other material applied as a continuous or partial coating to one or more surfaces are also covered. (Modified 04/02/92)

### **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. Otherwise, when production 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 float or sheet glass will also cover the other two types. ANSI Z97.1-2004 and 16 CFR 1201 do 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**

Bent Glass shall be certified separately from flat glass. Bent glass test methods shall be the same as for flat sample testing except as referenced in the text and figures of the ANSI Z97.1-2004 standard. Interpretation of results shall be the same. (Revised 10/21/05)

### **T.7**

For purposes of impact test evaluation when breakage occurs, the average thickness of a tempered glass specimen containing grooves, bevels and other thickness altering fabrication shall be considered the average of the thinnest measurement of each of the ten (10) geometrically largest particles. This average thickness will then be used to determine the maximum allowable weight of the ten (10) largest particles. Upon successful completion of testing the thickness for the specimen shall be listed in the CPD as the thickness of the non-fabricated base glass. SGCC® views glue chip, beveling, and grooving as a fabrication process prior to tempering, and as such is not certified separately from the base glass thickness. (Example: Certification of 3/16" TTG would also cover 3/16" glue chip or beveled product.) (Revised 10/01/02)

**TEMPERED PATTERNED 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 and the thickness should be measured in accordance with the procedure as described in ASTM C1036, current revision. The permanent label must contain this fraction on a metric or decimal dimension within the tolerance of this thickness as published in ASTM C1036. When testing to the impact test criteria in 16 CFR 1201.4(a)(1), four specimens shall be tested or as noted in guideline G.27. (Revised 4/19/04)

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

Patterned Depth Class	Ratio
Shallow patterned glass	0.90 or above
Medium patterned glass	0.80 through 0.89
Deep patterned glass	0.79 or below

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

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 patterned glass.

TP.3

For tempered patterned 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

(Deleted 10/5/04)

TP.5

When medium patterned 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 patterned 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, and clear or tinted interlayer, both flat and bent of the same nominal thickness. When testing to the impact test criteria in 16 CFR 1201.4(a)(1), four specimens shall be tested or as noted in guideline G.27. (Revised 10/22/93)

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.

The tolerance of the plastic sheet interlayer 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.

The tolerance of resin cast interlayers shall be based on the nominal thickness of the interlayer with a plus tolerance of 0.015 and a minus tolerance of 0.005 inches. (Revised 3/16/90)

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.

L.10

For certification to ANSI Z97.1-2004, weathering tests on laminated glasses shall be performed on the thinnest construction of all components in clear glass with clear plastics. Weathering tests shall only be required initially. Weathering data will be accepted from the glass fabricator, or a supplier, i.e. interlayer manufacturer.

**WIRED GLASS (ANSI ONLY)**

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

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 (ANSI Only)**

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 Categories C-1 and C-2 cast Acrylic, (including continuously cast sheet): As specified in ASTM-D4802-88, Table 2 and Table 3.

Outdoor use plastic materials Categories M-1 and M-2 extruded Acrylic: As specified in ASTM-D4802-88 Table 2 plus or minus five percent.

Outdoor use plastic materials extruded polycarbonate: As specified in Military Specification MILP-46144, latest issue.

Indoor use plastic materials plus or minus five 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 (ANSI Only)**

PE. 1 (ANSI ONLY)

Sheet plastics for exterior use must comply with the applicable specification.

PE. 2

Certification of plastics for exterior use shall be permitted prior to completion of ANSI Z97.1 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 (ANSI Only)**

PI.1

Sheet plastics used in indoor applications only do not have to comply with paragraph 5.3 of ANSI Z97.1 (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 - (ANSI ONLY)**

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 for each alternate pattern proposed.
- c) The Certification Committee is provided with a 6 inch 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 for each alternate size diamond proposed.
- c) The Certification Committee is provided with a 6 inch 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 caming center dimensions shall be plus or minus 12 percent.

Prototype samples must have diagonal caming 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. When testing to the impact test criteria in 16 CFR 1201.4(a)(1), four specimens shall be tested or as noted in guideline G.27. (Revised 10/22/93). For organic coated - hybrid, reference memorandum 940329-1.

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 (ANSI ONLY)

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.

AG .4

For certification to ANSI Z97.1-2004, weathering tests on organic coated glasses shall be performed on the thinnest construction of all components in clear glass with clear plastics. Weathering tests shall only be required initially. Weathering data will be accepted from the glass fabricator, or a supplier, i.e. organic coating manufacturer.

January 1, 2006

**~SGCC® LABEL REQUIREMENTS~**

**GENERAL**

Unless the SGCC® certification label is permanently affixed to each piece of safety glazing material, it is not covered by the SGCC® certification program.

The permanent label must contain the correct SGCC® number, ANSI Z97.1-2004 and/or 16 CFR 1201 (and category), the nominal thickness, the letter U or L indicating certified size and the ANSI impact class (A, B or C). (Revised 10/21/05)

These requirements are minimum requirements for SGCC Certification. Other jurisdictions, standards and codes may have additional requirements.

For labeling purposes, a line of demarcation shall separate those specifications covered by the SGCC® number from any other specifications the licensee may wish to reference.

The SGCC number can be used to identify both the “supplier” and “place of fabrication”. Refer to SGCC Guideline G.5 (Revised 10/21/05)

The permanent label must be affixed to certified products ONLY at the time and place of manufacture (except for situations covered by Guideline G.18 and as stated below. (Revised 10/25/01)

**EXAMPLES**

ABC Glass – Plant A (optional)  
16 CFR 1201 II  
ANSI Z97.1-2004  
1/4 U A SGCC 9999

ABC Glass – Plant A (optional)  
16 CFR 1201 II  
ANSI Z97.1-2004  
6mm U A SGCC 9999

**Labeling of Cut Sheet Safety Glazing** (refer to Guideline G.18)(added 10/25/01)

When a distributor or installer wishes to include the SGCC® label on pieces of safety glazing cut from properly fabricated, labeled, and SGCC® certified product, the following shall apply:

- 1.) The designation “C/F” for “Cut From” shall appear in front of the SGCC® number.
- 2.) The distributor or installer must have written permission to do so from the primary SGCC® certified producer. This written permission should address such issues as label accountability and application, differentiation between multi-source suppliers and a time frame or scope of labeling.
- 3.) Since SGCC® shall have no formal relationship with the distributor or installer, proper application and use of the SGCC® label shall be the responsibility of the SGCC® licensee producing the product.
- 4.) If the SGCC® label is not used, SGCC® has no jurisdiction.

**EXAMPLES**

SGCC® Licensee or Primary Producer  
Company ABC (optional)  
Laminated Glass (optional)  
ANSI Z97.1-2004  
16 CFR 1201 CII  
SGCC 9999 6mm U A

Authorized Distributor or Installer  
Company XYZ (optional)  
Laminated Glass (optional)  
ANSI Z97.1-2004  
16 CFR 1201 CII  
C/F SGCC 9999 6mm U A

The permanent label must be affixed ONLY to safety glazing materials of the licensee which are certified in the SGCC® certification 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 product.

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 to manufacture the initial or prototype samples.



## **ANSI (ONLY)**

"After having successfully passed the appropriate tests in this standard, like products and materials produced in the same manner as specimens submitted per test shall be legibly and permanently marked with a label."

### **Label Content.**

The label shall contain the following information:

- 1) Supplier's name, distinctive mark or designation.
- 2) The words "American National Standard Z97.1-2004" or the characters "ANSI Z97.1-2004."
- 3) Classification of test size (L or U) and drop height class (A, B or C). Plastic glazing does not require drop height.
- 4) Place of fabrication (if fabricator has more than one location fabricating the product).

NOTE: Additional details and information, such as thickness and date of manufacture, are permitted.

Quoted from ANSI Z97.1. (Revised 10/21/05)

### **Organic-Coated Glass Only.**

"Organic-coated glass materials shall be legibly and permanently marked with the words "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.

(Revised 10/21/05)

## **CPSC (ONLY)**

"Any glazing material that for accelerated environmental durability tests meets only the requirements of 1201.4 (e)(ii)(c) entitled Plastic (indoor 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 3" (inches) 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.

## **CPSC ACT LABELING REQUIREMENTS**

The following information is provided for the guidance of the licensee and is not a requirement of the SGCC® Certification Program.

The Consumer Product Safety Act defines a private labeler and permits private labeling as long as a manufacturer is identified, which can be in code. A "private labeler" means an owner of a brand or trademark on the label of a consumer product, which bears a private label.

Pursuant CPSC Advisory Opinion, dated April 12, 1984, a label on the material or product is acceptable as a certificate of compliance meeting the requirements of the CPSC if the label contains the same information required of a certificate of compliance. This information must include the date of manufacture, the place of manufacture, and the name of the manufacturer, importer, or private labeler. The certificate of compliance may also be a separate document, which accompanies the material or product or is otherwise furnished to each distributor or retailer.

With respect to the CPSC requirement that the certificate of compliance name the manufacturer, a label meets that requirement if it includes a suitable identification of the manufacturer of the product (unless the product bears a private label), in which case it shall identify the private labeler and shall also contain a code mark which shall permit the seller of such product to identify the manufacturer thereof to the purchaser upon his request.

As set forth in SGCC® certification guideline G.5, the SGCC® number designates the name of the licensee and also the location of the manufacturing plant, however, it does not designate the date of manufacture.

January 1, 2006

**CLASSIFIED TEMPERED GLASS PATTERNS**

**1/8 inch shallow**

(01) P-516 (02) Luxlite (03) Factorlite (09) Spraylite (32) Muralex (34) Velvex (36) Ribbed  
(37) Aquatex (38) Finetex (39) Industrex (82) Pattern 62 (83) Pointex (86) Showerlite (87) Heiolite  
(117) Solatex (120) Sunadex (147) Solatex I (150) Solatex II (168) Pattern 50 (170) Crepe  
(221) Gluechip Pattern

**1/8 inch medium**

(04) Rattan (05) Cotswold (06) Patchwork (07) Burlap (08) Smooth Rough (11) Flemish (31) Skytex  
(33) Seashell (35) Flax (52) Pattern 73 (56) Syenite (57) Pattern 299 (154) Rain (160) Model 10  
(162) Model 11 (164) Model 12 (165) Spotswood (167) Leaf (217) Privata

**1/8 inch deep**

(10) Autumn (212) Niagara (215) Floralite (219) Radiance

**5/32 inch shallow**

(59) Luxlite (60) Factorlite (64) Spraylite (70) Mulalex (72) Velvex (74) Ribbed (75) Aquatex  
(76) Finetex (81) Pattern 6 (88) Pattern 100 (118) Solatex (121) Sunadex (123) P-516 (124) Heiolite  
(126) Pattern 62 (127) Mistron Ace (128) Showerlite (148) Solatex I (151) Solatex II (153) Flax (156) Clar 104  
(157) Model 10 (158) Pontilhado (161) Model 11 (162) Model 12 (176) Hammered (177) Industrex (182) Sycamore  
(183) Stippolyte (185) Pelerine (186) Oak (190) Florielle (193) Contour (194) Charcoal Sticks  
(195) Chantilly (206) Strata (207) Matrix

**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  
(181) Taffeta (187) Minster (188) Mayflower (191) Everglade (192) Digital (196) Arctic (211) Niagara

**5/32 inch deep**

(65) Autumn (67) Oceanic (68) Roundel (173) Fluted (180) Warwick (184) Reeded (189) Linkon

**3/16 inch shallow**

(50) Pattern 62 (51) P-516 (54) Showerlite (116) Heiolite (119) Solatex (122) Sunadex (125) Spraylite  
(131) Industrex (132) Velvex (133) Aquatex (134) Pattern 100 (135) Pattern 6 (136) Burlap (137) Factorlite  
(138) Satinlite (139) Pluralite (140) Flax (141) Skytex (142) Chinchilla (149) Solatex I (152) Solatex II  
(159) Model 10 (171) Crepe (172) Pebble (220) Gluechip Pattern

**3/16 inch medium**

(58) Pattern 76 (143) Seashell (144) Syenite (145) Flemish (176) Rain (210) Niagara (213) Smooth Rough  
(214) Floralite (216) Privata (218) Radiance

**3/16 inch deep**

(12) Oceanic (13) Roundel (14) Lozenge (174) Krystal Flutes (178) Flutex (179) Bamboo

**.210 inch shallow**

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

**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  
(50) Textured Plate (84) Chinchilla (129) Orange Peel

**7/32 inch medium**

(42) Seashell (45) Beadex (47) Syenite (48) Flemish (49) Textured Linex (209) Niagara

**7/32 inch deep**

(29) Lizenge (53) Boardlite

**1/4 inch shallow**

(169) P-516 (197) Strata (198) Staccato (200) Matrix (203) Autumn

**1/4 inch medium**

(175) Fluted (199) Reeded (201) Flemish (202) Everglade (208) Niagara

**1/4 inch deep**

(222) Glacier (223) Pyramid

**3/8 inch shallow**

(204) Rain (205) Stippolyte

**Note: Numbers in parenthesis represent internal coding.**