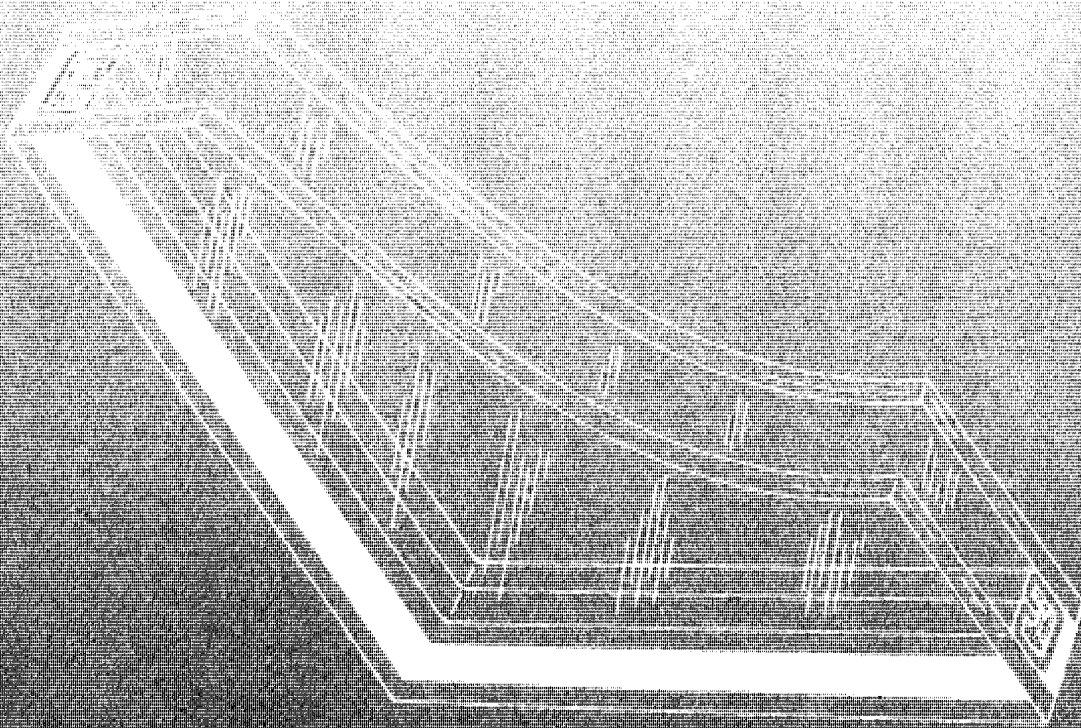


CERTIFIED PRODUCTS DIRECTORY

SEALED INSULATING GLASS

PHONE (315) 646-2234

AUGUST 1, 2000



INSULATING GLASS

IGCC[®]

CERTIFICATION COUNCIL

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION

Visit Our Website @ WWW.IGCC.ORG

TABLE OF CONTENTS

PAGE

Program Concept -----	2
Board of Governors -----	3
Roster -----	4
Communications -----	6
Participants -----	6
Past IGCC® Presidents' Recognition -----	8
Meetings of the Certification Committee -----	8
Certified Products Key -----	9
Certified Products (Alphabetically By Plant) -----	10
Prototypes In Progress -----	28
IGCC® Label Requirements -----	29
Advertising Guideline -----	30
Procedural Guide -----	31
Guidelines & Interpretations -----	36
Specifications Used -----	43
IGCC® Approved Laboratories -----	44
Participant's Agreement -----	45
License Agreement -----	46

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

Insulating Glass Certification Council, ® 1980

PROGRAM CONCEPT

Manufacturers of sealed insulating glass units, consumers, specifiers, and others who are responsible for or concerned with the quality and performance of products purchased in the public interest, recognizing a need for a sound product testing and performance certification program, have jointly established the Insulating Glass Certification Council (IGCC®). All IGCC® meetings are open to the public and public participation is encouraged.

IGCC® is a nonprofit organization which sponsors and directs a program of periodic accelerated laboratory testing and unannounced plant inspections to insure continuing product performance through specified standards. The testing specifications used are outlined in "ASTM Specification E774 for Sealed Insulating Glass." This specification basically classifies sealed units into three categories; C, CB or CBA, depending upon durability in the accelerated testing. It is the policy of IGCC® to remain flexible in referencing specifications and test methods in order to best reflect changing technology and new developments.

IGCC®'s responsibilities through its administrator are to see that periodic inspections and independent laboratory tests are performed on participating manufacturers' products and to validate the right of that manufacturer to use the IGCC® label on his product or products information claims. Additionally, IGCC® requires licensees to have a working quality assurance program for the fabrication of insulating glass. Adherence is verified during twice per year plant visits. These requirements were adopted to improve the overall quality of IG units in the program, and also to satisfy requirements established by the Department of Housing and Urban Development, HUD.

Management and control of the program is vested in a Board of Governors made up equally of industry and public interest members. The public interest representatives are empowered with 50 percent of the voting rights, and can veto any actions, regardless of the number present at a meeting. This insures against industry dominance of IGCC® action.

The program is under the supervision of a qualified administrator who is not affiliated with any manufacturer of insulating glass, material supplier, or participating testing laboratory, and is hired by and responsible to the Insulating Glass Certification Council. The manufacturers of the products listed herein have certified that the labeled materials comply with the performance characteristics established by ASTM E774. The compliance of the manufacturers with the requirements of that specification is validated periodically by the IGCC® administrator through inspections and testing by an independent testing laboratory under his direction.

Every manufacturer of insulating glass is eligible and encouraged to apply for the right to use the IGCC® label. However, permission to use the label is not granted until an independent laboratory test verifies compliance with the requirements. Once all requirements have been met, each product is assigned an IGCC® number to identify the product, performance class, and the factory in which it is made. Throughout the year, IGCC® requires the manufacturer to certify that the labels are being used only on units that are produced in the same manner and with the same materials as the tested specimens. Based upon these declarations, IGCC® authorizes continued use of the IGCC® label and the product listing published in this directory.

The Insulating Glass Certification Council wishes to recognize the substantial contributions made by the Safety Glazing Certification Council, the Sealed Insulating Glass Manufacturers Association (SIGMA), American Society for Testing and Materials (ASTM), The National Bureau of Standards (NIST), National Institute of Standards & Technology (NIST), FHA, HUD, Public Interest Persons, the Industry, and particularly consumers. Without input from such a broad cross-section, this program would not be possible.

August 1, 2000

IGCC® BOARD OF GOVERNORS

REPRESENTING PUBLIC INTEREST

W. Lynn Beason
Civil Engineering Department
Texas A & M University
College Station, TX 77843-3136
Telephone: (409) 845-4469
Fax: (409) 845-6554
E-mail: w-beason@tamu.edu

Arthur W. Johnson
Arthur W. Johnson & Associates
3635 Grayton Drive
New Port Rickey, FL 34652
Telephone: (727) 842-4469
Fax: (727) 847-2486

Dr. Joseph E. Minor, P.E.
Consulting Engineer
PO Box 603
Rockport, TX 78381-0603
Telephone: (361) 729-0656
Fax: (361) 729-0656

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

Donald J. Vild, PE
PO Box 7514
Oregon, OH 43616
Telephone: (419) 693-8929
Fax: (419) 693-8702
E-mail: dvild@msn.com

REPRESENTING INDUSTRY

Mark Cody
AFG Industries
PO Box 929
Kingsport, TN 37662
Telephone: (423) 229-7222
Fax: (423) 229-7156
E-mail: Mark_Cody@afg.com

Lyle N. Krohnberg
Viracon Inc.
800 Park Drive, PO Box 990
Owatonna, MN 55060
Telephone: (507) 451-9555
Fax: (507) 444-3555
E-mail: lkrohnberg@viracon.com

Kevin O'Connell
Grace Davison
7500 Grace Drive
Columbia, MD 21044
Telephone: (410) 531-4221
Fax: (410) 531-4280
E-mail: Kevin.OConnell@grace.com

Lori Postak
TruSeal Technologies Inc.
23150 Commerce Park
Beachwood, OH 44122
Telephone: (216) 910-1500
Fax: (216) 910-1505
E-mail: postak@truseal.com

IGCC® OFFICERS

Mark Cody, President
Lori Postak, Secretary

August 1, 2000

IGCC CERTIFICATION COMMITTEE

Donald J. Vild, Chairman

Note: Board members are members of the Certification Committee by virtue of being a board member.

<u>Licensee</u>	<u>Primary Member</u>	<u>First Alternate</u>	<u>Second Alternate</u>
ACI Distribution			
AFG Insulating	James Brooks	Mark B. Cody	Thomas Mewbourne
AFGD	James Brooks	Mark B. Cody	Thomas Mewbourne
AFGD, Div. Of AFG Ind. Ltd.	James Brooks	Mark B. Cody	Thomas Mewbourne
Alpen Inc.			
Alside Window Co-Midwest			
Arch Aluminum & Glass L.C.	Leon Silverstein	Dan Haney	
Assurance Glass Co.	Walt Myers	Cheri Kellman	
Atwood Mobile Products			
Berkowitz J E Inc.	Jim Stinsman		
Capitol Aluminum & Glass Corp.			
Capitol Glass & Aluminum Corp.			
Cardinal IG	Robert G. Spindler	Roger O'Shaughnessy	James Larsen
Casmere Glass Corporation			
Classic Glass of Battle Creek Inc.			
Coastal Glass Distributors			
Croft Metals Inc.-NC			
Crystal Window & Door Systems, Ltd.			
Curved Glass Distributors			
Custom Glass Prod. Of Carolina	Steven Reeder		
Custom Glass Products Inc.	Victor Reeder	Eric Reeder	Joseph Oboikovitz
Custom Insulated Glass, Inc.			
Dykstra Brothers Glass Co.	Brent Moomey	Rick Kasten	Kevin Schulz
Edge Seal Technologies Inc.	Michael McHugh	Mike Bayer	Susan Ordd
Exxal-Sistemas Universales de Aluminio			
Floral Glass & Mirror Inc.			
Four Seasons Solar Products	Mark Nahvi		
Gardner Glass Products			
GGI Glass Distributors Corp.	Ron Vance		
Glass Enterprises Inc.			
Glass Products Inc.			
Glaswerks Phx, LLC			
Glenny Glass Co.			
Graham Architectural Products			
Guardian Fabrication Inc.	Hal F. Brothers	Henry A. Gorry	I. Daphinne Pedreschi
Guardian Inds Corp.-Lewistown	Hal F. Brothers	Henry A. Gorry	I. Daphinne Pedreschi
Harvey Industries, Inc.			
Hehr Glass Company			
Hoffer's Inc., Glass Fab. Div.	Steve Soczka	Tom Beese	Kevin Schulz
Hoffer's/Glasmont Corp.	Ken Lancaster	Kevin Schulz	Jeff Sweet
Hurd Millwork	James Sorge	Peter Nygard	Paul Wagner
Insulpane of Connecticut Ind			
Interpane Glass Co	Dalton Schreiber		
Jersey Tempered Glass, Inc			
Laminated Glass Corp.		Mike Lerner	
Louisville Plate Glass			
Mannix; Div of Interstate Window			
Marvin Windows	James Krahn	Douglas Steinbring	
Mid-American Glass			

August 1, 2000

<u>Licensee</u>	<u>Primary Member</u>	<u>First Alternate</u>	<u>Second Alternate</u>
Nashville Tempered Glass Corp			
National Glass Ltd.			
Norco Windows			
Northern Building Products, Inc.			
Northwest Glass, Inc.			
Northwestern Inds, Inc.	Tim McQuade	James Levingston	Henry Heiss
ODL, Inc.			
Oldcastle Glass, Inc.*	Richard Wright	Robert Williams	
Paramount Windows			
Patio Enclosures, Inc.	Jeff Nowell	Bob Boger	
PDC Glass of Michigan Inc.			
Perilstein Distributing Corp.			
Philips Products Inc.-CA	John W. Lewis, Jr.	Rob Manthey	
PPG Inds. Inc.			
Prelco Inc.			
Pride Insulated Glass Co. Inc.			
REPCO			
Revere Building Products, Div.of Gentek			
Rochester Insulated Glass Inc.	Stanley Wolk		
S N E Enterprises	Doug Palmer		
Shenzhen Nanfang Insul. Glass Co.			
Sierra Pacific Windows			
SIGCO, Inc.	David McElhinny	Steven Freeman	
Solar Seal Co.	Frederic P. Shaw, Jr.		
Syracuse Glass Co. Inc.			
Taiwan Glass USA Sales Corp.			
Tecnoglass S.A.			
Tempered Glass, Inc.	Rob Brewer	Joseph M. Scalzo	
Thermolite Inc.			
Thermolock Manufacturing Co., LLC			
Thermoseal Glass Corp.	Richard Chubb	Larry Klick	
Tower Glass Products Corp.			
TRACO (Three Rivers Alum)			
Twin Pane Insulated Glass Co. Inc.			
United Plate Glass Co. Inc.			
Vidrio Plano de Mexico S/N			
Vinylume Products	Robert P. Randall		
Viracon Inc.	Lyle Krohnberg	Roger Skluzacek	Don Boutelle
W A Wilson Inc.	Bob Hartong	Mark Bond	Jody Campbell
Weather Shield Mfg. Inc.	Val Brushaber	Rick Gugliuzza	Steve Wright
Weatherproof Inc.			
Winchester Industries			

*Note: Oldcastle Glass, Inc. represents Downey Glass, General Glass, Glass Distributors of America, HGP Industries, North American Glass, Tempglass, and United Tempering Systems.

August 1, 2000

COMMUNICATIONS

In all matters concerning the administration and implementation of the IGCC® Certification Program. Correspondence may be directed to any of the following:

IGCC® Board of Governors
Mark Cody, President
AFG Industries
PO Box 929
Kingsport, TN 37662
Telephone: (423) 229-7222
Fax: (423) 229-7156
E-mail: Mark_Cody@afg.com

IGCC® Certification Committee
Donald J. Vild, Chairman
PO Box 7514
Oregon, OH 43616
Telephone: (419) 693-8929
Fax: (419) 693-8702
E-mail: dvild@msn.com

Insulating Glass Certification Council
John G. Kent, Administrative Manager
Christine Flitcroft, Administrative Assistant
PO Box 9
Henderson Harbor, NY 13651
Telephone: (315) 646-2234
Fax: (315) 646-2297
E-mail: jgkent@gisco.net

Legal Counsel
Leland J. Badger
Howe & Hutton Ltd.
1899 L St. NW, Suite 1200
Washington, DC 20036
Telephone: (202) 466-7252
Fax: (202) 466-5829
E-mail: ljb@howehutton.com

PARTICIPANTS (SUPPLIERS)

Adco Products Inc.
4401 Page Avenue
Michigan Center, MI 49254
Phone: (800) 248-4010 Fax: (517) 764-6697
Dale Stoy, Linda Hall, Kathy Lamb

Delchem, Inc.
PO Box 10703
Wilmington, DE 19850
Phone: (302) 426-1800 Fax: (302) 426-1464
John Matukaitus

Allmetal Inc.
636 Thomas Drive
Bensenville, IL 60106
Phone: (630) 250-8090 Fax: (800) 323-5224
Dennis J. Raske, Jeff Anderson

Dow Corning Corporation
2200 Salzburg Road
Auburn, MI 48611
Phone: (517) 496-5980 Fax: (517) 496-5956
Bill O'Brien

Alumet Mfg Inc.
3803 136th Street
Marysville, WA 98271
Phone: (360) 653-6666 Fax: (360) 653-9884
Larry Peterson

Elf Atochem North America Inc.
2000 Market Street
Philadelphia, PA 19103-3222
Phone: (215) 419-7000 Fax: (215) 419-5230
Pascal Sauvaire

Bostik Construction Products
Boston Street
Middleton, MA 01949
Phone: (800) 523-2678 Fax: (215) 357-0460
Michael Hoban

GE Silicones
260 Hudson River Road
Waterford, NY 12188
Phone: (518) 233-2638 Fax: (518) 233-3938
Paul Recrosio

Chemetall Chemical Products
50 Valley Road
Berkeley Heights, NJ 07922
Phone: (800) 526-4473 Fax: (908) 665-0778
Christian J. Dilger
Larry Carr E-mail: Larry.Carr@Chemetall.com

Grace Davison
7500 Grace Drive
Columbia, MD 21044
Phone: (410) 531-4221 Fax: (410) 531-4280
E-mail: Kevin.Oconnell@grace.com
Kevin O'Connell

August 1, 2000

H B Fuller Company
1200 Willow Lake Blvd.
St. Paul, MN 55110
Phone: (651) 481-3322 Fax: (651) 481-3309
E-mail: kristen.hagestuen@hbfuller.com
Kristen Hagestuen

Hygrade Metal Moulding Mfg. Corp.
1990 Highland Avenue
Bethlehem, PA 18017
Phone: (610) 866-2441 Fax: (610) 866-3761
Doug Sherman, Vincent Pagano

Morton International Inc.
1275 Lake Avenue
Woodstock, IL 60098-7499
Phone: (312) 807-2000 Fax: (312) 807-3362
John Gilmore

PQ Corporation
280 Cedar Grove Road
Conshohocken, PA 19428-2240
Phone: (610) 651-4676 Fax: (610) 651-4911
E-mail: tdescha@pqcorp.com
Todd Deschaine

PRC-DeSoto International, Inc.
PO Box 1800
5430 San Fernando Road
Glendale, CA 91209
Phone: (818) 240-2060 Fax: (818) 549-7600
Rich A. Giangjordano

TruSeal Technologies Inc.
23150 Commerce Park
Beachwood, OH 44122
Phone: (216) 910-1500 Fax: (216) 910-1505
Lori Postak

UOP
Molecular Sieve Development
50 East Algonquin Road
Des Plaines, IL 60017-5017
Phone: (847) 375-7390 Fax: (847) 375-7982
E-mail: TJDANGIE@UOP.COM
Thomas Dangieri

Zeochem
562 Prince Edward Road
Glen Ellyn, IL 60137-6711
Phone: (630) 545-0108 Fax: (630) 545-0109
E-mail: tshanley@earthlink.net
Thomas Shanley

PARTICIPANTS (NON SUPPLIERS)

Ronald D. Lowden, Jr.
6811 Atlantic Avenue
Ventnor City, NJ 08406-2655

Robert Schwartz
Skidmore, Owings & Merrill
103 Hooverton Place
East Windsor, NJ 08520

Dr. Joseph E. Minor
Consulting Engineer
PO Box 603
Rockport, TX 78381-0603

Donald J. Vild, PE
PO Box 7514
Oregon, OH 43616

James L. Spetz
ETC; Jim Spetz Testing Division
29633 Lakeland Boulevard
Wickliffe, OH 44092

Scott Warner
Architectural Testing Inc.
130 Derry Court
York, PA 17402-9405

Claude F. Robb
Claude Robb & Associates
378 Cos Cob Drive
Absecon, NJ 08201

August 1, 2000

IN RECOGNITION OF PAST PRESIDENTS WHO SERVED IGCC® SINCE ITS INCEPTION

Roger D. O'Shaughnessy	Cardinal IG	1977-1979
Donald J. Vild	LOF Glass	1979-1981
Colin S. Brady	Twin Pane	1981-1982
Robert G. Spindler	PPG	1982-1983
Jerry Catalano	Hordis Brothers	1983-1985
Dr. Joseph Minor	University of Missouri	1985-1989
Mitchell D. Edwards	SPI Glass Corp.	1989-1992
John Colapietro	Tempglass Inc.	1992-1993
Robert G. Spindler	Cardinal IG	1993-1996
James Krahn	Marvin Windows	1996-1999
Mark Cody	AFG Industries	1999-Present

**MEETINGS OF THE
CERTIFICATION COMMITTEE**

The Certification Committee of the Insulating Glass Certification Council meets once every nine months. Interested persons may obtain minutes of this meeting and earlier meetings by writing to the Insulating Glass Certification Council.

By-laws are also available by writing to the Insulating Glass Certification Council.

Certification in this directory is up to date as of the date of issue; however, products may be authorized to use the permanent label or authorization removed from time to time. Please contact the IGCC® office for the latest up-to-date information.

Direct all requests or any comments to:

Insulating Glass Certification Council
Mr. John G. Kent
PO Box 9
Henderson Harbor, NY 13651

Telephone: 315-646-2234
Fax: 315-646-2297
E-mail: jgkent@gisco.net

CERTIFIED PRODUCTS KEY

Sealant:

BSS	=	Butyl sealant spacer
HMB	=	Hot melt butyl
MPS	=	Modified Polysulfide
MPU	=	Modified Polyurethane
PIB	=	Polyisobutylene
PS	=	Polysulfide
PU	=	Polyurethane
SI	=	Silicone
PUMS	=	Polyurethane modified silicone
RHMB	=	Reactive Hot melt butyl
EPU	=	Extrudable Polyurethane

Construction Components:

K	=	Key
J	=	Joiner
AP	=	Aperture plug
ASM	=	Air space material
L	=	Leg

Construction Materials:

AL	=	Aluminum
DC	=	Die cast
PL	=	Plastic
AA	=	Anodized aluminum
MA	=	Mill finish aluminum
AC	=	Aluminum channel
FS	=	Foam Spacer
GS	=	Galvanized steel
SS	=	Stainless steel
TPS	=	Tinplate steel
TP	=	Thermoplastic
R	=	Rubber

Desiccant:

MS	=	Molecular sieve
SG	=	Silica gel
BL	=	Blended desiccant
DM	=	Desiccated matrix

Substrate:

U	=	Uncoated
C	=	Coated
SCF	=	Suspended coated film

Thermal Break:

DP	=	Desiccated plastic
PF	=	Plastic foam
P	=	Plastic

Vapor Barrier:

AF	=	Aluminum foil
B	=	Butyl
P	=	Plastic

Fabrication Techniques:

S	=	Soldered
W	=	Welded
B	=	Brazed
BC	=	Bent Corners

Note: The materials of construction as listed above are presented as general information only. The designations for the various component parts are generic and do not reflect specific product modifications or technical differences within a component. For more detailed information on components, contact your insulating glass supplier.

UNDER EACH COMPANY'S NAME IS THEIR IGCC® PERMANENT LABEL

August 1, 2000

**CERTIFIED PRODUCTS
ALPHABETICAL BY PLANT**

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
ACI Distribution 12900 Nicholson Road PO Box 815547 Dallas, TX 75381-5547 (972) 484-3691 ACI 140 IGCC® CBA '00	703 CBA 1106 CBA 1239 CBA	PLK PLK PLK	U U U/SCF	AA AA GS	MS MS MS	PIB/SI PIB/HMB PU
ACI Distribution 2710 Patterson Street PO Box 7130 Greensboro, NC 27407 (800) 729-3909 ACI DISTRIBUTION IGCC ® CBA '00	1425 CBA 1426 CBA	PLK PLK	U U	AA AA	MS MS	HMB HMB/HMB
ACI Distribution 2765 La Fayette Street Santa Clara, CA 95050 (408) 748-2120 IGCC @ 1355 CBA '00	1355 CBA	PLK	U	AA	BL	PIB/SI
ACI Distribution 3225 S. 116th Ste. 133 Seattle, WA 98158 (206) 244-0727 ACI 197 IGCC @ CBA '00	1170 CBA 1171 CBA 1172 CBA	PLK PLK PLK	U/SCF U U	GS AA AA	MS MS MS	PU PU PIB/PU
AFG Insulating 365 McClurg Road-Suite E Boardman, OH 44512 (330) 965-1000 PG IGCC ® CBA '00	1269 CBA 1309 CBA 1310 CBA 1391 CBA 1498 CBA	BC PLK BC BC BC	U U U U/C U	TPS AA BSS FS TPS	DM MS	HMB PU BSS HMB HMB/PUMS
AFG Insulating 207 Watlington Industrial Rd. Reidsville, NC 27320 (336) 342-3878 IGCC @ CBA '00	1554 CBA	BC	U	BSS	DM	BSS
AFGD 8017 Edith Blvd. Albuquerque, NM 87113 (505) 898-1460 CGAC-A IGCC ® CBA '00	1285 CBA	PLK	U	MA	MS	PIB/MPS
AFGD 1201 Hwy 67 E Alvarado, TX 76009 (817) 477-1144 AFGD 24 IGCC ® CBA '00	1025 CBA	BC/PLJ	U	AA	BL	PIB/MPS

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
AFGD 11950 E 33 Ave. Aurora, CO 80010 (303) 340-4000 AFGD 21 IGCC ® CBA '00	1259 CBA	PLK/ASM	U	AA	BL	PIB/MPS
AFGD 3350 Ball St. Birmingham, AL 35224 (205) 841-6785 AFGD 03 IGCC ® CBA '00	1332 CBA	PLK	U	AA	BL	PIB/MPS
AFGD 4041 Remi Place Burnaby, BC V5A 4J8 Canada (604) 420-3600 AFGD TWINSULITE VANCOUVER IGCC ® CBA '00	1491 CBA	PLK/ASM	U/C	MA	BL	PIB/SI
AFGD 575 Currant Rd. Fall River, MA 02720 (508) 675-9220 AFGD 7 IGCC ® CBA '00	1339 CBA 1340 CBA	PLK PLK	U U	AA AA	BL BL	PIB/MPS MPS
AFGD 148 Flint Hill Rd. Fort Mill, SC 29715 (800) 866-2341 AFGD 4 IGCC ® CBA '00	1215 CBA 1413 CBA	PLK PLK	U U	AA AA	BL BL	PIB/MPS PIB/SI
AFGD 160 N. High Street PO Box 220 Hebron, OH 43025-0220 (740) 929-2443 AFGD 06 IGCC ® CBA '00	1155 CBA 1241 CBA	BC/PLJ/L BC/PLJ/L	U/C U/C	AA AA	BL BL	PIB/PS PIB/SI
AFGD 6600 Suemac Pl. Jacksonville, FL 32254-2792 (904) 786-6611 AFGD 02 IGCC ® CBA '00	1344 CB 1447 CBA 1456 CBA	PLK PLK PLK	U U U	AA AA AA	BL BL BL	MPS PIB/MPS PIB/SI
AFGD 2522 Westcott Blvd. Knoxville, TN 37923 (865) 691-2040 AFGD 05 IGCC ® CBA '00	1549 CBA	BC/AAJ/AP	U	AA	MS	PIB/MPS
AFGD 3200 Austell Rd. Marietta, GA 30060 (770) 434-2041 AFGD 1 IGCC ® CBA '00	1324 CBA 1326 CBA	BC/GSJ BC/GSJ	U U	AA AA	MS MS	PIB/SI PIB/MPS

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
AFGD 6200 Gorman Rd. Richmond, VA 23231 (804) 222-0120 AFGD 10 IGCC @ CBA '00	1085 CBA 1327 CBA	PLK PLK	U U	AA AA	BL BL	PIB/MPS PIB/SI
AFGD 803 Prestige Pkwy Scotia, NY 12302 (518) 374-3812 AFGD 09 IGCC @ CBA '00	1349 CBA	PLK	U	AA	BL	PIB/MPS
AFGD 450 Deschambault Street Winnipeg, MB R2H 0K1 Canada (204) 233-0229 AFGD Twinsulite Winnipeg IGCC @ CBA '00	1535 CBA 1536 CBA	PLK/AP/ASM BC/ASM	U U	MA FS	BL	PIB/MPS MPS
AFGD, Div. Of AFG Ind. Ltd. 75 Doney Crescent Concord, ON L4K 1P6 Canada (905) 669-1930 AFGD TORONTO SEALITE IGCC @ CBA '00	679 CBA 1209 CBA	BC/ALJ BC/ALJ	U/C U/C	MA AA	MS MS	PIB/SI PIB/SI
Alpen Inc. 5400 Spine Rd. Boulder, CO 80301 (303) 530-1150 ALP IGCC @ CBA '00	880 CBA	PLK/BC	U/SCF	ST	BL	PU
Alside Window Co-Central 3773 State Road Cuyahoga Falls, OH 44309 (330) 922-2119 AWCC IGCC @ CBA '00	1338 CBA	BC	U	TPS	DM	HMB
Alside Window Co-Midwest 3820 44th Ave. SW Cedar Rapids, IA 52401 (319) 390-4237 AWCMW IGCC @ CBA '00	1133 CBA	BC	U	TPS	DM	HMB
Alside Window Co-SE 3800 Farmgate Road Kinston, NC 28501 (252) 527-5050 AWCSE IGCC @ CBA '00	1148 CBA	BC	U	TPS	DM	HMB
Arch Aluminum & Glass Co. W226 N758 Eastmound Drive Waukesha, WI 53186 (800) 242-2071 IGCC @ CBA Wauk '00	1465 CBA 1468 CBA	PLK/ASM PLK/ASM	U U	MA MA	MS MS	PIB/PU PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Arch Aluminum & Glass Co., Inc. 2030 N.W. Progress Parkway Jackson, MS 39213 (800) 815-5658 Jack IGCC @ CBA '00	1292 CBA 1361 CBA	PLK PLK	U U	AA AA	MS MS	PIB/SI PIB/PS
Arch Aluminum & Glass L.C. 7701 W. New York St. Indianapolis, IN 46214 (800) 876-0646 INDY IGCC @ 1323 CBA '00	1323 CBA	PLK	U	AA	MS	PIB/PS
Arch Aluminum & Glass L.C. 41 Osage Avenue Kansas City, KS 66105 (800) 676-8199 KC IGCC @ CBA '00	1385 CBA	PLK	U	AA	MS	PIB/PS
Arch Aluminum & Glass L.C. 3320-B Maggie Blvd. Orlando, FL 32811 (800) 367-7211 IGCC @ 1299 CBA '00	1299 CBA	PLK	U	AA	MS	PIB/PS
Arch Aluminum & Glass L.C. 1825 S. 43rd Avenue Phoenix, AZ 85009 (800) 854-8022 ARCH ALUM IGCC @ CBA '00	1597 CBA 1598 CBA	PLK PLK	U U	AA AA	MS MS	PIB/SI PIB/PS
Arch Aluminum & Glass L.C. 540 Industrial Court West Villa Rica, GA 30180 (770) 944-2724 V/R IGCC @ CBA	1380 CBA	PLK	U	AA	MS	PIB/PS
Arch Aluminum & Glass L.C. 400 Park Avenue Youngsville, NC 27596 (919) 554-1993 Young IGCC @ CBA '00	1485 CBA	PLK	U	AA	MS	PIB/MPS
Assurance Glass Co. Selfield Ind. Pk PO Box 1452 Selma, AL 36702 (334) 875-1900 AG IGCC @ CBA '00	420 CBA 1248 CBA	PLK PLK	U U	MA MA	BL BL	PIB/PS PIB/SI
Atwood Mobile Products 3196 Thompson Rd. Fenton Operation Fenton, MI 48430 (810) 629-9558 THOMPSON IG IGCC@ CBA '00	1367 CBA	PLK/ASM	U	MA	MS	PIB/MPS

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Berkowitz J E Inc.	1138 CBA	BC/WL	U	MA	MS	PIB/SI
Delsea Dr. & Harvard Dr.	1139 CBA	BC/WL	U	MA	MS	PIB/PS
PO Box 186	1140 CBA	PLK	U	AA	MS	PIB/PS
Westville, NJ 08093	1362 CBA	BC	U	TPS	DM	HMB
(856) 456-7800	1482 CBA	BC	U	TPS	DM	HMB/PU
JEB IGCC @ CBA '00						
Brin Northwestern Glass Co.	1580 CBA	BC/SSK/AP/ASM	U	MA	MS	PIB/PU
2300 N. 2nd Street						
Minneapolis, MN 55411						
(612) 529-9671						
BU IGCC @ CBA '00						
Capitol Aluminum & Glass Corp.	884 CBA	PLK	U/SCF	GS	MS	PU
1276 W. Main St.						
Bellevue, OH 44811						
(419) 483-7050						
CAG-HM IGCC @ CBA '00						
Capitol Glass & Aluminum Corp.	1132 CBA	PLK/ASM	U	AA	MS	PIB/MPS
3515 S 300 W						
Salt Lake City, UT 84115						
(801) 268-2521						
CGAC IGCC @ CBA '00						
Cardinal IG	1464 CBA	BC/PLJ/SS/ASM	U/C	SS	MS	PIB/SI
4611 15th Ave N.W.	1492 CBA	BC/ALJ/AF	U/C	AA	MS	PIB/SI
Fargo, ND 58102						
(701) 492-0920						
CIG 6 IGCC @ CBA '00						
Cardinal IG	1452 CBA	BC/SJ/ASM	U/C	AA	MS	PIB/SI
301 E. McSwain Drive	1453 CBA	BC/PLJ/AF/ASM	U/C	SS	MS	PIB/SI
PO Box 99						
Fremont, IN 46737						
(219) 495-4105						
CIG-5 IGCC @ CBA '00						
Cardinal IG	1030 CBA	BC/PLJ/AF/ASM	U/C	SS	MS	PIB/SI
Iowa 25 N.	1276 CBA	BC/ALJ/AF/ASM	U/C	AA	MS	PIB/SI
PO Box 99						
Greenfield, IA 50894						
(515) 343-7113						
CIG 2 IGCC @ CBA '00						
Cardinal IG	1033 CBA	BC/PLJ/AF/ASM	U/C	SS	MS	PIB/SI
7115 W. Lake St.	1284 CBA	BC/PLJ/AF/ASM	U/C	AA	MS	PIB/SI
Minneapolis, MN 55426						
(612) 929-0317						
CIG 1 IGCC @ CBA '00						
Cardinal IG	1564 CBA	BC/ALK/ASM	U/C	AA	MS	PIB/SI
24100 Cardinal Avenue	1593 CBA	BC/PLJ/AF/ASM	U/C	SS	MS	PIB/SI
Moreno Valley, CA 92551						
(909) 485-9007						
CIG 15 IGCC @ CBA '00						

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Cardinal IG 1011 E. Madison St. PO Box 789 Spring Green, WI 53588 (608) 588-7415 CIG 3 IGCC @ CBA '00	1036 CBA 1306 CBA	BC/PLJ/AF/ASM BC/ALK/AF/ASM	U/C U/C	SS AA	MS MS	PIB/SI PIB/SI
Cardinal IG 1620 Town Line Rd. Tomah, WI 54660 (608) 372-3300 CIG 4 IGCC @ CBA '00	1039 CBA 1295 CBA	BC/PLJ/AF/ASM BC/ALJ/AF/ASM	U/C U/C	SS AA	MS MS	PIB/SI PIB/SI
Cardinal IG 2215 Hwy. 77 PO Box 537 Waxahachie, TX 75116 (972) 937-4969 CIG-8 IGCC @ CBA '00	1574 CBA	BC/ALJ	U/C	AA	MS	PIB/SI
Casmere Glass Corporation 8300 Grinnell Road Detroit, MI 48213 (313) 921-1223 CASMERE IGCC @ CBA '00	1430 CBA	PLK	U	AA	MS	PIB/PS
Classic Glass of Battle Creek Inc. 21472 M-37 Battle Creek, MI 49017 (616) 968-2791 CLASSIC GLASS IGCC @ CBA '00	1004 CBA 1010 CBA	PLK/AP PLK/AP	U U	AA AA	MS MS	PIB/PS PIB/SI
Coastal Glass Distributors 7421 E. Spartan Blvd. Charleston, SC 29418-8462 (843) 552-6377 CGD IGCC @ CBA '00	1365 CBA 1366 CBA	PLK BC	U U	AA FS	MS	HMB HMB
Croft Metals Inc.-MS PO Box 826 McComb, MS 39648 (601) 684-6121 CMI 92-1 IGCC @ CBA '00	1131 CBA	BC/ASM	U	BSS		BSS
Croft Metals Inc.-NC Hwy 71 PO Drawer 90 Lumber Bridge, NC 28357 (910) 843-3391 CMI 92-2 IGCC @ CBA '00	1069 CBA	BC/ASM	U	BSS		BSS
Crystal Window & Door Systems, Ltd. 131-40 Maple Ave. Flushing, NY 11355 (718) 961-7300 IGCC@ CBA CWDI '00	1328 CBA 1439 CBA	BC BC	U U	BSS TPS		BSS HMB

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Curved Glass Distributors 72 Chappel St. Derby, CT 06418 (203) 735-4665 CGD IGCC @ CBA '00	1063 CBA	PLK	U/C	AA	MS	PIB/PU
Custom Glass Prod. Of Carolina 1475 Harrison Rd. PO Box 2049 Salisbury, NC 28144 (704) 633-4946 CGPC IGCC @ CBA '00	918 CBA	PLK/ASM	U	AA	MS	PIB/PU
Custom Glass Products Inc. 5906 Mester St. PO Box 590 Schofield, WI 54476 (715) 359-2252 CGP IGCC @ CBA '00	745 CBA	BC/PLK/AP	U	AA	MS	PIB/PU
Custom Insulated Glass, Inc. 1660 Hwy. 155 South McDonough, GA 30253 (678) 432-6576 Custom IG IGCC @ CBA '00	1556 CBA	BC/PLJ/ASM	U/C	AA	MS	PIB/EPU
Downey Glass 5631 Ferguson Dr. Los Angeles, CA 90022 (323) 887-6000 D.G. IGCC @ CBA '00	1311 CBA 1437 CBA	BC/PLJ BC/PLJ	U U	AA AA	MS MS	PIB/PS PIB/SI
Dykstra Brothers Glass Co. 4257 30th St. Burnips, MI 49314 (616) 896-8341 HOFFERS DYK IGCC @ CBA '00	732 CBA 1424 CBA	PLK/ASM PLK/ASM	U U	AA AA	MS MS	PIB/SI PIB/PU
Edge Seal Technologies 6750 Vistoria East Austintown, OH 44515 (330) 793-7677 EST 1200 IGCC @ CBA '00	1200 CBA	BC/AP	U	TPS	DM	HMB
Edge Seal Technologies Inc. 7850 Northfield Rd. Walton Hills, OH 44146 (440) 439-0980 EST 1268/1561 IGCC @ CBA '00	1268 CBA 1561 CBA	BC BC	U U	TPS TPS	DM DM	HMB MPU/HMB
Exxal-Sistemas Universales de Aluminio Camino El Guanaco 4748 Huechuraba Casilla Santiago, 52454 Chile (562) 685-8784 IGCC @ CBA '00	1501 CBA 1502 CBA	BC/PLJ/AP GSK/AP	U U	AA AA	MS MS	HMB/SI HMB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Floral Glass & Mirror Inc. 895 Motor Pkwy. PO Box 18039 Hauppauge, NY 11788-8839 (631) 234-2200 INSULA 1 IGCC @ CBA '00	1577 CBA 1614 CBA	BC BC	U U	TP TP		TP/SI TP/SI
Floral Glass Ind. Inc. 224 Sandbank Rd. PO Box 882 Cheshire, CT 06410 (203) 272-2211 INSULA 2 IGCC @ CBA '00	801 CBA	PLK/ASM/AP	U	MA	MS	PIB/SI
Four Seasons Solar Products 5005 Veterans Memorial Pkwy. Holbrook, NY 11741 (631) 563-4000 FSSP 968 90996 IGCC @ CBA	1525 CBA	PLK/AP	U	AA	MS	PS
General Glass 11205 E. 37th Ave. PO Box 390711 Denver, CO 80239 (303) 371-5511 DUAL-PANE IGCC @ CBA '00	932 CBA 1496 CBA	BC/PLK BC/PLK	U U	AA AA	MS MS	PIB/SI PIB/PS
GGI Glass Distributors Corp. 5012 Expressway Drive S. Ronkonkoma, NY 11779 (631) 580-9000 GGI IGCC @ CBA '00	1455 CBA	PLK	U	MA	MS	PIB/SI
Glass Dist. of America 3353 Reno Avenue Charlotte, NC 28216 (704) 393-8899 GDA 46 IGCC @ CBA '00	1461 CBA	PLK/ASM	U	AA	MS	PIB/PU
Glass Dist. of America 2241 Sweetwater Ind. Blvd. Lithia Springs, GA 30122 (770) 732-2000 GDA IGCC @ CBA '00	1434 CBA 1435 CBA	PLK PLK	U U	AA AA	MS MS	PU PIB/PU
Glass Enterprises Inc. 2277 New York Avenue Bensalem, PA 19020 (215) 638-1007 Beta-Pane IGCC @ CBA '00	1436 CBA	PLK	U	AA	MS	PIB/PU
Glass Products Inc. 1302 Oak Street Bloomer, WI 54724 (715) 568-3649 GPI IGCC @ CBA '00	1480 CBA	PLK/AP/ASM	U/C	MA	MS	PIB/PU

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Glaswerks Phx, LLC 3233 E. Corona Avenue Phoenix, AZ 85040 (800) 243-4277 IGCC ® 856 CBA '00	856 CBA	BC/PLK	U	MA	MS	PIB/PS
Glenny Glass Co. 11310 Williamson Road PO Box 62476 Cincinnati, OH 45262 (800) 535-2133 GLENNY IGCC ® CBA '00	1483 CBA	PLK	U	MA	MS	PIB/PS
Graham Architectural Products 1551 Mt. Rose Ave. York, PA 17405 (717) 849-8100 GRAHAM IGCC ® CBA '00	1428 CBA	BC/SSJL	U	AA	MS	PIB/SI
Guardian Fabrication Inc. 1412 S. First St. Rogers, AR 72756 (501) 636-0888 GRD-028 IGCC ® CBA '00	1108 CBA	PLK	U	AA	MS	MPS
Guardian Inds Corp.-Lewistown One Belle Ave. Lewistown, PA 17044 (717) 242-2571 GRD-065 IGCC ® CBA '00	566 CBA 613 CBA	PLK PLK	U U	AA AA	MS MS	PIB/MPS PIB/SI
Harvey Industries, Inc. 570 Cottage Road Springfield, MA 01104 (413) 788-0066 HII-4 IGCC ® CBA '00	1533 CBA	BC/AP	U/C	TPS	DM	HMB
Hehr Glass Company 1021 Walnut Ave. Pomona, CA 91766 (909) 628-5557 HEHR Glass IGCC ® CBA '00	1357 CBA	PLK	U	AA	BL	PIB/PS
HGP Industries 5334 Barthel Drive PO Box 130 Albertville, MN 55301 (612) 497-3212 HGP 22 IGCC ® CBA '00	317 CBA 1421 CBA 1566 CBA 1567 CBA	PLK/ASM BC/PLJ/ASM PLK PLK	U U U U	MA MA SS SS	MS MS MS MS	PIB/PU PIB/SI PIB/SI PIB/PU
HGP Industries 1331 W. Sam Houston Pkwy N. Houston, TX 77043 (713) 464-5611 HGP 65 IGCC ® CBA '00	1136 CBA 1137 CBA	PLK PLK	U U	AA AA	MS MS	PIB/HMB PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
HGP Industries 541 Industry Rd., Ste. 430 Louisville, KY 40208 (502) 637-2022 HGP 64 IGCC @ CBA '00	1240 CBA	BC/PLJ/TPSJ	U	AA	MS	PIB/SI
HGP Industries 1500 Glen Ave. Moorestown, NJ 08057 (856) 234-9222 HGP 12 IGCC @ CBA '00	494 CBA	PLK	U	AA	MS	PIB/SI
HGP Industries 3404 W. Papago St. Phoenix, AZ 85009 (602) 253-6980 HGP 63 IGCC @ CBA '00	1102 CBA	PLK	U	AA	MS	PIB/HMB
HGP Industries 1900 Midland St. PO Box 11339 Rock Hill, SC 29731 (803) 366-5167 HGP 44 IGCC @ CBA '00	1167 CBA 1219 CBA	PLK BC/PLK	U U	AA GS	MS MS	PIB/SI PU
HGP Industries 10000 N. Harrison Shawnee, OK 74801-9503 (800) 654-2710 HGP 61 IGCC @ CBA '00	1165 CBA 1168 CBA	PLK PLK	U U	AA AA	MS MS	PIB/HMB PIB/SI
HGP Industries 1548 Stone Ridge Dr. Stone Mountain, GA 30083 (800) 241-9455 HGP 42 IGCC @ CBA '00	914 CBA 1077 CBA 1418 CBA	PLK PLK PLK	U U U	AA AA AA	MS MS MS	PIB/SI PIB/HMB PIB/PU
HGP Industries 5115 East Hartford St. Tampa, FL 33619 (800) 282-7291 HGP 43 IGCC @ CBA '00	1372 CBA	PLK	U	AA	MS	PIB/HMB
HGP Industries 1700 Daniel Boone Ind. Pk. Warrenton, MO 63383 (636) 456-3452 HGP 21 IGCC @ CBA '00	1445 CBA 1604 CBA	BC/PLK/AP/ASM PLK/AP/ASM	U/C U	AA AA	MS MS	PIB/PS PIB/SI
Hoffer's Inc., Glass Fab. Div. 5103 Janice Ave. Schofield, WI 54476 (800) 922-6639 H.I. GFB IGCC @ CBA '00	1178 CBA 1262 CBA 1312 CBA 1319 CBA	BC/ASM BC/ASM BC/PLK/ASM BC/PLK/ASM	U/C U/C U/C U/C	TPS FS AA AA	DM MS MS	PIB/PU PU PIB/PU PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Hoffer's/Glasmont Corp. 4635 W. 84th St., Suite 100 PO Box 68596 Indianapolis, IN 46268 (800) 382-4509 GMT IGCC @ CBA '00	653 CBA 917 CBA 1514 CBA	PLK/AP PLK/AP PLK/AP/ASM	U/C U/C U/C	MA MA AA	MS MS MS	PIB/SI PIB/PU PIB/PU
Hurd Millwork 1815 Water St. Merill, WI 54452 (715) 536-5755 HURD IGCC @ CBA '00	1013 CBA 1256 CBA 1264 CBA	BC/PLK/AP BC/ASM BC	U/SCF U/C U/SCF	GS/SF TPS TPS	MS DM DM	PU/AL/PIB PIB/PU PIB/PU
Insulpane of Connecticut Ind 30 Edmond St Hamden, CT 06517 (203) 865-8212 INSULPANE OF CT IGCC @ CBA '00	770 CBA	PLK	U	AA	MS	PIB/PU
Interpane Glass Co PO Box 408 Clinton, NC 28328 (910) 592-7101 INTERPANE IGCC @ CBA 3 '00	876 CBA 984 CBA	BC/WL PLK	U/C U	MA AA	MS MS	PIB/SI PIB/SI
Interpane Glass Co 201 Interpane Lane PO Box 26 Deerfield, WI 53531 (608) 764-5461 INTERPANE WI IGCC @ CBA '00	1158 CBA	PLJ	U	MA	MS	PIB/SI
Jersey Tempered Glass, Inc 2035 Briggs Rd Mt. Laurel, NJ 08054 (609) 273-8700 JTG IGCC @ CBA '00	689 CBA 750 CBA	PLK PLK	U U	AA AA	MS MS	PU PIB/PU
Laminated Glass Corp. 375 E. Church Ave. PO Box 1003 Telford, PA 18969-1003 (215) 721-0400 LGC IGCC @ CBA '00	857 CBA	PLK	U	AA	MS	PIB/SI
Louisville Plate Glass 1401 W Broadway PO Box 1203 Louisville, KY 40201 (502) 584-6145 LPG IGCC @ CBA '00	1280 CBA 1281 CBA	PLK PLK	U U	AA AA	MS MS	PIB/PS PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Mannix; Div of Interstate Window 345 Crooked Hill Road Brentwood, NY 11717 (631) 231-0800 IMANNIX IGCC ® CBA '00	1337 CBA	PLK	U	AA	MS	HMB/PU
Marvin Windows PO Box 100 Warroad, MN 56763 (218) 386-1430 MARVIN 01 IGCC ® CBA '00	496 CBA 1135 CBA	PLK/PF/AP BC/AP	U U	AA TPS	MS DM	PIB/PU PIB/PU
Mid-American Glass 117 S. Sturdevant St. PO Box 3428 Davenport, IA 52802 (319) 326-6294 MAG IGCC ® CBA '00	1542 CBA 1543 CBA	PLK PLK	U U	AA PL	BL BL	PIB/RHMB PIB/RHMB
Nashville Tempered Glass Corp. 1241 Avondale Drive Hendersonville, TN 37075 (615) 826-6336 NTGC IGCC ® CBA '00	1117 CBA 1184 CBA	PLK PLK	U U	AA MA	BL BL	PIB/PU PIB/PU
National Glass Ltd. 5744 198th Street Langley, BC V3A 7J2 Canada (604) 530-2311 Nationallite Langely IGCC® CBA '00	1454 CBA	PLK	U	MA	BL	PIB/SI
Norco Windows PO Box 140 Hawkins, WI 54530 (715) 585-6311 NORCO IGCC ® CBA '00	1415 CBA 1526 CBA	BC BC	U U	FS TPS	DM	PU PUMS
North American Glass 1001 Foster Ave Bensenville, IL 60106 (630) 595-3750 NAG 23 IGCC ® CBA '00	1477 CBA 1478 CBA	PLK PLK	U U	MA MA	MS MS	PIB/MPS PIB/SI
North American Glass 4161 S Morgan St Chicago, IL 60609 (773) 523-8400 NAG 24 IGCC ® CBA 2000	1289 CBA	PLK	U	AA	MS	PIB/HMB
North American Glass 3805 S. Main St South Bend, IN 46614 (219) 291-6044 NAG 25 IGCC® CBA 2000	1290 CBA	PLK	U	AA	MS	PIB/PU

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Northern Building Products, Inc. One Remsen Place Ridgefield, NJ 07657 (201) 943-6400 NBP IGCC @ CBA '00	1341 CBA	BC	U	BSS		BSS
Northwest Glass, Inc. 127 Regal St. PO Box 21258 Billings, MT 59104 (406) 252-7196 NWG IGCC@ CBA '00	865 CBA	PLK/ASM	U	AA	BL	PU
Northwestern Inds, Inc. 2501 Commodore Way Seattle, WA 98199 (206) 285-3140 NWI IGCC@ CBA '00	940 CBA 941 CBA 1274 CBA	BC/PLK BC/PLK BC	U/C U/C U	MA MA TPS	MS MS DM	PIB/PS PIB/SI PIB/PS
ODL, Inc. 215 E. Roosevelt Avenue Zeeland, MI 49464 (616) 772-9111 ODL IGCC @ C '00	1407 CBA 1411 CBA	PLK/ASM PLK/ASM	U U	AA AA	MS MS	HMB PS
Paramount Windows 105 Panet Rd Winnipeg, MB R2J OS1 Canada (204) 233-4966 Paramount IGCC@ CBA 2000	1493 CBA	BC/PLK/ASM/AP	U	MA	BL	PIB/PS
Patio Enclosures, Inc. 720 East Highland Road Macedonia, OH 44056 (330) 468-0700 PEI IGCC @ CBA '00	800 CBA	PLK	U	AA	MS	PIB/PU
PDC Glass of Michigan Inc. 300 Dunn Street Plymouth, MI 48170 (734) 354-0310 PERMA-PANE IGCC@ CBA '00	466 CBA 467 CBA	PLK/ASM PLK/ASM	U U	AA AA	BL BL	PIB/MPS PIB/SI
Perilstein Distributing Corp. 100 Business Center Drive Cheswick, PA 15024 (800) 232-9050 PERMA-PANE IGCC @ CBA '00	765 CBA 927 CBA	PLK PLK	U U	AA AA	BL BL	PIB/MPS PIB/SI
Philips Products 9141 Arrow Highway Cucamonga, CA 91730 (909) 987-4694 PP03 IGCC @ CBA '00	1053 CBA 1458 CBA 1510 CBA	PLK/AP/ASM BC/ASM BC/AF/ASM	U U U	AA TPS FS	BL DM	HMB HMB HMB

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Philips Products 499 West Sassafras Street PO Box 118 Selinsgrove, PA 17870 (570) 374-8163 PP07 IGCC @ CBA '00	1504 CBA 1505 CBA	BC/AF/AP/ASM BC/AP/ASM	U U	FS TPS	DM	HMB HMB
Philips Products 1620 Wilco Road Stayton, OR 97383 (503) 769-6321 PP28 IGCC @ CBA '00	1054 CBA 1242 CBA	PLK/ASM BC/ASM	U U	AA TPS	BL DM	HMB HMB
PPG Inds. Inc. 3700 Division Street Burlington, IA 52601 (319) 753-2961 TWINDOW 42 IGCC @ CBA '00	1303 CBA	BC	U	TPS	DM	PIB/PS
Prelco Inc. 94 Boulevard Cartier Riviere-du-Loup, QC G5R 2M9 Canada (800) 463-1325 PRELCO IGCC @ CBA Riviere-du-loup 2000	1387 CBA 1388 CBA	BC/PLK/AP BC/PLK/AP	U/C U/C	AA AA	BL BL	PIB/PS PIB/SI
Pride Insulated Glass Co. Inc. 75 N. Brandon Drive Glendale Heights, IL 60139 (630) 351-1441 PRIDE IGCC @ CBA '00	1048 CBA	PLK	U	AA	MS	PIB/MPS
Revere Building Products Div. Gentek Bldg. Products 4545 Carolian Ave., Bldg. F Richmond, VA 23222 (804) 321-1793 GBP IGCC @ CBA '00	1175 CBA	BC	U	BSS		BSS
Rochester Insulated Glass Inc. No. 73 Merrick Circle Manchester, NY 14504 (716) 289-3611 RIG IGCC @ CBA '00	451 CBA	BC/PLJ	U	AA	MS	PIB/SI
S N E Enterprises 1000 S. View Dr. Mosinee, WI 54455-0700 (715) 693-7000 SNE M IGCC @ CBA '00	553 CBA 1544 CBA	BC/PLK/AP/ASM BC/PLK/AP/ASM	U U	AA AA	MS MS	PIB/PU PIB/EPU
S N E Enterprises 2116 Wood Street Stevens Point, WI 54481 (715) 693-7000 SNE P IGCC @ CBA '00	1001 CBA	BC/PLK/AP/ASM	U	AA	MS	PIB/PU

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Shenzhen Nanfang Insul. Glass Co. Southern Glass Bldg., #10 6th Industrial Rd. Shekou, Shenzhen, 518067 P.R. China (755) 669-5970 IGCC © CBA '00	1476 CBA	BC/GSJ	U	AA	MS	PIB/PS
SIGCO, Inc. 299 Presumpscot St. Portland, ME 04103 (207) 775-2676 SIGCO IGCC © CBA '00	654 CBA 1232 CBA 1444 CBA	PLK/ASM PLK/ASM PLK/ASM	U U U	AA AA AA	MS MS MS	PS PIB/PS PIB/SI
Solar Seal Co. 55 Bristol Drive South Easton, MA 02375 (508) 238-0112 SOLAR SEAL IGCC © CBA '00	1079 CBA 1487 CBA	BC/PLJ/AAJ BC/PLJ/AAJ	U U	AA AA	MS MS	PIB/SI PIB/PS
Sunbelt AFGD Glass 15720 West 108th Street, Suite B Lenexa, KS 66219 (800) 743-9922 IGCC © CBA '00	1499 CBA	PLK	U	AA	MS	MPS/HMB
Syracuse Glass Co. Inc. 4019 New Court Ave. PO Box 381 Syracuse, NY 13206 (315) 437-9971 SGC IGCC © CBA '00	823 CBA 828 CBA	PLK PLK	U U	AA AA	BL BL	PIB/MPS PIB/SI
Taiwan Glass USA Sales Corp. PO Box 307 Wilsonville, OR 97070 Taiwan (503) 682-2255 Taiwan Glass Ind. Corp. 1356 IGCC © CBA '00	1356 CBA	PLK	U	AA	MS	PU/SI
Tecnoglass S.A. Avenida Circunvalar a 100 mts de la Via 40 Las Flores, Barranquilla Columbia (575) 355-3333 Tecnoglass IGCC © CBA '00	1393 CBA	PLK/AP	U/C	MA	MS	PIB/MPS
Tempered Glass, Inc. 7160 Delta Circle Austell, GA 30001 (404) 819-3054 Inde-Pane ATL IGCC © CBA '00	1003 CBA 1123 CBA	PLK PLK	U U	MA MA	MS MS	PIB/SI PIB/MPS
Tempglass 15601 Brookpark Road Brook Park, OH 44142 (216) 676-6920 TEMPGLASS 86 IGCC © CBA '00	1538 CBA 1585 CBA	PLK PLK	U U	AA AA	MS MS	PIB/PS PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Tempglass 48999 Kato Road Fremont, CA 94539 (510) 651-2292 TEMPGLASS 84 IGCC @ CBA '00	1111 CBA 1578 CBA	PLK PLK	U U	AA AA	MS MS	PIB/SI PIB/HMB
Tempglass 1101 Fountain Pkwy. Grand Prairie, TX 75050 (972) 647-4028 TEMPGLASS 83 IGCC @ CBA '00	862 CBA 1304 CBA 1469 CBA	PLK PLK PLK	U U U	AA AA AA	MS MS MS	PIB/SI HMB PIB/HMB
Tempglass 17851 NW Miami Court Miami, FL 33169 (305) 652-3350 TEMPGLASS 82 IGCC @ CBA '00	1101 CBA	PLK	U	AA	MS	PIB/SI
Tempglass 22475 Heslip Drive Novi, MI 48375 (248) 305-8445 TEMPGLASS 85 IGCC @ CBA '00	1488 CBA 1588 CBA	PLK PLK	U U	AA AA	MS MS	PIB/HMB PIB/PS
Tempglass 291 "M" Street, Ampoint Industrial Park Perrysburg, OH 43551 (419) 666-2000 TEMPGLASS 81 IGCC @ CBA '00	1489 CBA 1584 CBA	BC/PLK/AP PLK/AP	U U	AA AA	MS MS	PIB/PS PIB/SI
Thermolite Inc. 950 N. South Road Scranton, PA 18504 (570) 969-1957 THERMOLITE INC IGCC @ CBA '00	646 CBA	PLK	U	AA	MS	HMB
Thermolock Manufacturing Co., LLC 16880 Front Street Copemish, MI 49625 (800) 831-6289 TMC IGCC @ CBA '00	1313 CBA	BC/ASM	U	BSS		BSS
Thermoseal Glass Corp. 400 Water Street Gloucester City, NJ 08030 (856) 456-3109 TSL IGCC @ CBA '00	1408 CBA 1494 CBA	BC/PLK BC/PLK	U U	AA AA	BL BL	MPS PU
Tower Glass Products Corp. 95 Horton Avenue Lynbrook, NY 11563 (516) 887-3300 Tower Glass IGCC @ CBA 1470 '00	1470 CBA	PLK	U	AA	MS	PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
TRACO (Three Rivers Alum) 71 Progress Ave. Cranberry Ind. Pk. Cranberry Township, PA 16066-3596 (724) 776-7000 TRACO IGCC @ CBA '00	439 CBA	BC/W	U	MA	MS	PIB/SI
TRACO (Three Rivers Alum) 2400 Broadway Street Red Oak, IA 51566 (712) 623-5800 TRACO IGCC @ CBA '00	1307 CBA	BC/ASM	U	TPS	DM	HMB
Twin Pane Insulated Glass Co. Inc. 86 E. Horseblock Rd. PO Box 279 Yaphank, NY 11980 (631) 924-1060 TP IGCC @ CBA '00	1528 CBA	PLK	U	AA	MS	PIB/SI
United Plate Glass Co. Inc. 330 East Cunningham Street Butler, PA 16001 (724) 282-7400 UPG '00 IGCC @ CBA 1513	1513 CBA	PK/AP/ASM	U/C	AA	BL	PIB/PU
United Tempering Systems 4101 NE 112th Avenue Vancouver, WA 98662 (360) 256-0015 UTS 73 IGCC @ CBA '00	1517 CBA 1537 CBA	PLK/ASM PLK/ASM	U U	AA AA	MS MS	PIB/PS PIB/SI
Vidrio Plano de Mexico S/N Ex-Hacienda de la Santa Cruz San Juan Ixhuatepec, Tlanepantla Edo. De Mexico, Apartado Postal 14710 C.P. 54180 Mexico (525) 227-6088 VPM IGCC @ CBA '00	1546 CBA 1557 CBA	BC/PLJ/AP BC/PLJ/AP	U/C U/C		BL BL	PIB/PS PIB/SI
Vinylume Products 3745 Hendricks Road Austintown, OH 44515 (330) 799-2000 IGCC @ 1369 V-L CBA '00	1369 CBA	BC	U	BSS		BSS
Viracon Inc. 800 Park Drive PO Box 990 Owatonna, MN 55060 (507) 451-9555 VIRACON IGCC @ CBA Owatonna, MN '00	169 CBA 980 CBA 1462 CBA 1463 CBA	BC/ALK/S/AP BC/ALK/AP BC/GSJI/AP BC/GSJI/AP	U/C U/C U/C U/C	MA AA MA AA	MS MS MS MS	PIB/SI PIB/SI PIB/SI PIB/SI

August 1, 2000

<u>LICENSEE</u>	<u>IGCC NUMBER</u>	<u>FRAME CONSTRUCTION</u>	<u>SUBSTRATE</u>	<u>SPACER</u>	<u>DESICCANT</u>	<u>SEALANT</u>
Viracon Inc. 8373 Zell Miller Parkway Statesboro, GA 30458 (912) 871-3500 VIRACON IGCC @ CBA Statesboro, GA '00	1530 CBA	BC/GSJ/AP	U/C	AA	MS	PIB/SI
W A Wilson Inc. 6 Inds. Pk. Dr. PO Box 6712 Wheeling, WV 26003 (304) 232-2200 STARLITE IGCC @ CBA '00	1394 CBA 1395 CBA	PLK PLK	U U	AA AA	BL BL	PIB/PS PIB/SI
Weather Shield Mfg. Inc. Adams Avenue E. PO Box 432 Ladysmith, WI 54848 (715) 748-2100 L 00314 IGCC @ CBA '00 WS	1520 CBA 1568 CBA	BC/PLK/ASM BC/PLK/ASM	U U	AA AA	MS MS	RHMB/EPU PIB/RHMB
Weather Shield Mfg. Inc. 2990 S. 8th W. Route 1 Box 103 Logan, UT 84321 (435) 753-6590 U 00314 IGCC @ CBA '00 WS	557 CBA	PLK/ASM	U	AA	MS	PIB/PU
Weather Shield Mfg. Inc. One Weathershield Plaza PO Box 309 Medford, WI 54451 (715) 748-2100 M 00314 IGCC @ CBA '00 WS	408 CBA 1519 CBA 1569 CBA	PLK/ASM BC/PLK/ASM BC/PLK/ASM	U U U	AA AA AA	MS MS MS	PIB/PU PIB/RHMB RHMB/EPU
Weatherproof Inc. 385 Watts Rd. Jackson, MI 49203 (517) 764-1330 WEATHERPROOF IGCC @ CBA '00	1446 CBA	BC/PLJ/ASM/AP	U/C	AA	MS	EPU
Winchester Industries Route 286 E. Box 160 Saltsburg, PA 15681 (724) 639-3551 WI IGCC @ CBA '00	928 CBA	BC	U	BSS		BSS

August 1, 2000

“PROTOTYPES IN PROGRESS”

The following candidate Licensees have a prototype test in progress for possible inclusion in the IGCC® Program.

MANUFACTURERS

AFG Insulating	Boardman, OH
AFG Insulating	Reidsville, NC
AFGD; Div. of AFG Industries Ltd.	Boucherville, Quebec, Canada
AFGD; Div. of AFG Industries Ltd.	London, Ontario, Canada
All Weather Windows	Edmonton, Alberta, Canada
Alpen Inc.	Boulder, CO
American Flat Glass Dist.	Birmingham, AL
Arch Aluminum & Glass L.C.	Bridgeport, NJ
Architectural Window Mfg. Corp.	Maywood, NJ
J.E. Berkowitz Inc.	Westville, NJ
Casmere Glass Corporation	Detroit, MI
Croft Metals Inc.	Magnolia, MS
Custom Glass Products of Carolina	Salisbury, NC
Edge Seal Technologies	Walton Hills, OH
Floral Glass & Mirror Inc.	Hauppauge, NY
Free State Glass Inds.	Warrenton, VA
Gardner Glass Products	Newington, VA
Harvey Industries, Inc.	Manchester, NH
HGP Industries	Rock Hill, SC
HGP Industries	Shawnee, OK
Hoffer's/Glassmont Corp.	Indianapolis, IN
Kasson & Keller Inc.	Fonda, NY
Louisville Plate Glass	Louisville, KY
NY Glass Products Inc.	Buffalo, NY
ODL, Inc.	Zeeland, MI
Paramount Windows	Winnipeg, Manitoba, Canada
Philips Products	Elkhart, IN
Sierra Pacific Windows	Red Bluff, CA
Tempglass	Miami, FL
Tru-Lite	Salt Lake City, UT
Viracon Inc.	Statesboro, GA
Weather Shield Mfg. Inc.	Logan, UT

NOTICE

In accordance with the terms of the IGCC® Procedural Guide, the IGCC® Standard License Agreement and Appendix A (Affidavit) thereto, a manufacturer with a prototype product test in progress is not authorized to use an IGCC® permanent label for that product or to certify that its product is in compliance with IGCC® Program Standards and Procedures until a passing prototype test report for that product is presented by the manufacturer to the IGCC® office and the manufacturer is otherwise in compliance with IGCC® Program Procedures.

IGCC® LABEL REQUIREMENTS

THE IGCC® CERTIFICATION LABEL MUST BE PERMANENTLY MARKED ON A VISIBLE PORTION OF EACH SEALED INSULATING GLASS UNIT OR IT IS NOT CERTIFIED BY THE MANUFACTURER TO THE PUBLIC. The label shall be etched, sand blasted, embossed, printed, painted or otherwise permanently marked on the spacer or at least one component pane of the sealed unit.

This label must be visible after installation in the building. The IGCC® permanent label must be in block capital letters and have a minimum height of 0.050 inches. The letters IGCC® must be followed by the Federal Registration Mark or a close facsimile, i.e., IGCC®.

The IGCC® permanent label must contain the company identification. (company name, trade name or company code) plant code*, registered "IGCC®" mark, C, CB, or CBA rating level, and a date code spanning no more than a 12 month period, plus or minus one month. The date code should commence with the beginning of each calendar year (effective for both the beginning and the ending of each period). Outdated spacers may be hand stamped to bring the label up to date. The Plant Code will only be required when there is more than one plant with an IGCC® certified product operating under the same company name. The IGCC® permanent label must be affixed to certified products only at the time and place of manufacture. The labeling must be approved by the Administrator. The rating level (C, CB, or CBA) will be considered as part of the IGCC® label. The permanent label must be affixed only to the sealed insulating glass units of the licensee's own manufacture which have been certified by the manufacturer through IGCC®.

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.

Example of Minimum Labels:

<u>Company Identification Code</u>	<u>Plant Code</u>	<u>IGCC®</u>	<u>Rating Level</u>	<u>Year</u>
AMERICAN GLAZING COMPANY	*	IGCC®	CBA	'00
or				

AMERIPANE

or

AGC

All 3 if desired but must be listed

The IGCC® permanent label is listed under each company's name in the "Certified Products" section of this directory.

* A plant code will only be required when there is more than one plant with an IGCC® certified product operating under the same company name

**A GUIDELINE FOR YOUR ASSISTANCE IN ADVERTISING YOUR PRODUCTS
AND THEIR CERTIFICATION STATUS UNDER THE INSULATING GLASS
CERTIFICATION COUNCIL ("IGCC®") CERTIFICATION PROGRAM**

The following concepts are important to remember whether you are a Participant, Licensee in the IGCC® Certification Program, or a supplier to the sealed insulating glass industry. This discussion is intended to provide you with an accurate background description of the IGCC® Certification Program, to help you avoid making possibly misleading, deceptive, or ambiguous statements regarding the Program in the advertising of your products.

1. IGCC® is the sponsor of a Certification Program. IGCC® does not certify products.
2. The Administrator inspects laboratories and checks their equipment; inspects Licensees' production and fabrication of specimens; and validates test reports and certification claims.
3. Laboratories test specimens to specific test methods and specifications, referenced by IGCC®
4. Manufacturer/Licensees "certify" their products, affirming that their products are constructed similarly to specimens which were inspected, tested and found to pass the stated criteria. A Licensee's Certification Statement is the imprinting, sandblasting, etching or other form of permanent marking of an IGCC® Certification Program designation and number to its product.
5. IGCC® does not have "members," inasmuch as the term "members" carries with it a connotation that some detailed criteria must be met in order to participate in the organization. Under the IGCC® concept, anyone can participate and "participants" simply must possess a "legitimate interest in the purposes of IGCC®." Manufacturers, on the other hand, which are "fabricators of sealed insulating glass units," become Participants by virtue of executing a License Agreement with IGCC®. Any manufacturer of insulating glass may voluntarily enter into a license agreement with IGCC®, provided that they intend to certify at least one product under the IGCC® Certification Program. Thus, the proper term to use for a manufacturer participant is "Licensee." A manufacturer, with a prototype in progress, is termed a "Candidate Licensee."
6. Unit specimens, not their components, are tested under the IGCC® program. Thus, if you are a supplier to the industry, statements indicating that your components have complied with the test methods would be incorrect. A better nomenclature for example, would be, that "Units tested to ASTM E774 contained our X component have been found to meet the requirements of Class Y."
7. Should you have any questions concerning the IGCC® Certification Program, please contact:

Insulating Glass Certification Council
Mr. John G. Kent
PO Box 9
Henderson Harbor, NY 13651
Telephone: 315-646-2234
Fax: 315-646-2297
E-mail: jgkent@gisco.net

PROCEDURAL GUIDE

INSULATING GLASS CERTIFICATION COUNCIL

CERTIFICATION PROGRAM FOR SEALED INSULATING GLASS

FOREWORD

Acceptance of certified sealed insulating glass comes with the conviction that such certification assures a high level of quality and the integrity of the identifying mark or certification label is being reliably maintained by a competent certifying agency.

The existing ASTM Specification E774 for sealed insulating glass provides a sound technical basis for the required quality of sealed insulating glass. With the addition of independent administration plus periodic routine in-plant visited and product evaluation, a program of product certification is developed in accordance with accepted standards. The certification program described here is predicated upon the concept of independent and impartial administration of the certification procedures in the IGCC® 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 "IGCC® 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 procedures and routine operation of the certification program.

GENERAL INFORMATION

The Certification Concept

The IGCC® Certification Program is based upon the conviction that no standard of quality is good without the continuous adherence of the licensees to that standard. To buyers, specifiers, code officials and users, the IGCC® certification label offers the manufacturers assurance that his sealed insulating glass units have been produced in conformance to the ASTM specification E774.

Who Can Participate?

Every manufacturer of sealed insulating glass is eligible, on a voluntary basis, to participate.

Who Conducts the Program?

The Insulating Glass Certification Council, a non-profit corporation, is the sponsor of this certification program. IGCC® supervises the certification program under which the administrator periodically checks and reports compliance of the manufacturers of products having the IGCC® certification label.

Administration

Administrative Management Systems, Inc. (AMS) is the independent administrator of the certification program. AMS maintains the IGCC® office of certification and handles the routine day-to-day business. All transactions are done in the name of IGCC®.

How Can You Become a Licensee?

The following steps must be accomplished before IGCC® can authorize a manufacturer to use the

IGCC® permanent label:

- a) The manufacturer must present a passing prototype report from an approved IGCC® testing laboratory (fabrication of which was witnessed by the administrator) to the IGCC® office.
- b) The manufacturer signs two copies of the IGCC® License Agreement and sends these to the IGCC® office. IGCC® will countersign both copies and return one to the licensee.
- c) The Appendix A, to the License Agreement, contains a description of the model (prototype report attached) that will be authorized to use the IGCC® permanent label.
- d) The licensee sends IGCC® the necessary certification fee.
- e) After receipt by IGCC® of the above, the administrator validated that particular model and sends to the licensee a "Notice of Authorization to Use the IGCC® Permanent Label." The permanent label must be affixed on each certified sealed insulating glass unit.
- f) The certified model will then be listed in the next published Certified Products Directory.

HOW THE CERTIFICATION PROGRAM WORKS

American Society for Testing and Materials has test methods and specifications for sealed insulating glass. Sealed insulating glass must meet or exceed the applicable specification before it can be certified.

IGCC® recognized independent testing laboratories conduct all tests. The IGCC® certification committee shall approve all laboratories, whose test reports are utilized by this certification program.

As the sole judge of compliance with the applicable specifications, the administrator authorizes a product which has been approved to be listed in the Certified Products Directory.

Licensees label sealed insulating glass units in accordance with the labeling requirements established by the IGCC® Certification Committee.

Approved products are listed in the Certified Products Directory, which is published every six months. It is sent to door, sash and building manufacturers, glazing contractors, home builders, architects, regulatory agencies and code-making groups, etc. Directory listings contain the licensee's name, plant location and product description.

The administrator verifies production at the licensee's manufacturing location twice per year by making unannounced inspections. The prototype test will be considered as the test for the first year of certification. During the first year, two inspections will take place at which time the inspector will compare current production with the product authorized to use the IGCC® permanent label. During the first inspection in the second year, specimens will be fabricated for testing. IGCC® will ask the manufacturer to produce twelve test specimens. The fabrication of these twelve test specimens is witnessed by IGCC® and IGCC® verifies that they are produced in accordance with the construction certified. The licensee is instructed to send these test specimens to an official IGCC® testing laboratory where they are tested. The specimens must be shipped to the laboratory within four weeks of fabrication. Tests are made at the laboratory recommended by the licensee and selected by the administrator from the approved list.

A monthly report listing the status of testing is mailed to the licensee by IGCC® on the 15th of each month.

Upon completion of the test, the administrator mails results promptly to the licensee.

COMPLIANCE SAFEGUARDS

How is Compliance Assured?

Any certified product found in the course of routine inspection and evaluation not to be in compliance with the model description is subject to having authorization to use the IGCC® permanent label removed. The licensee is sent a Request for Clarification giving thirty days in which to demonstrate to the satisfaction of the administrator that his product is in compliance with the model description that is certified. If he does not respond, a "Warning of Possible Removal of Authorization to Use the IGCC® Permanent Label" is sent by certified mail; return receipt requested, giving an additional thirty days to respond. If he does not respond, authorization to use the IGCC® permanent label is **automatically terminated** at the end of that thirty-day period.

In the case of a routine test failing to comply with the specifications, the licensee will be officially notified by certified mail, return receipt requested, that within 15 days he must respond by stating that a retest fabrication is requested and by paying all administrative and test fees. If there is no response within the 15 days, authorization to use the IGCC® permanent label is automatically terminated. If the retest option is accepted, the administrator will perform an inspection and witness fabrication of the retest specimens within 45 days of payment of fees.

Challenging a Certified Product

Complaints of non-compliance from any corporation or business source will be investigated promptly by IGCC® upon receipt of the complaint in writing along with an appropriate surety deposit. A minimum surety deposit of \$1,500 will be required for each complaint of non-compliance. The surety deposit will be assessed at the rate of \$300 per man plus the reasonable cost of travel and other expenses entailed in resolving such incidents. Refunds of part or all of the surety deposit will be made when applicable. The surety deposit will cover all costs involved, unless the investigation proved non-compliance, in which case all costs will be borne by the licensee found to be in non-compliance.

Complaints by Consumers

The administrator shall receive and log the complaint; responding to the consumer with a Certified Products Directory and instructions on how to locate the IGCC® label.

It will be the consumer's responsibility to identify the label, number, class and date code which appear on the spacer of glass and advise the administrator of the same. Note: If no IGCC® label exists, the product has not been certified by the manufacturer to IGCC® and the administrator and IGCC® have no further responsibilities or options.

Once the consumer has identified the label, name, etc. and advised the administrator, the administrator shall respond, advising the consumer of the name, address, primary contact, model description and other pertinent information at hand as it pertains to the subject licensee. Note: If the complaint is being made for reasons of product appearance or failure such as glass quality, fogging, seal failure, dust, etc., the consumer shall be advised to contact the licensee for manufacturer directly. Some manufacturers and their dealers or distributors offer warranties on their products. Normal claims, procedures and legal remedies are available to consumers on a state by state basis.

If the consumer wishes to determine whether or not a labeled product is in compliance with the model described through an investigation by IGCC®, the corporation or business challenge procedure shall be utilized. The surety deposit shall be modified to \$400 and charges per man day shall be assessed against the surety deposit in the amount of \$300 plus reasonable travel costs and other expenses.

Withdrawal of Certified Product

Any product which has been authorized to use the IGCC® permanent label may be voluntarily withdrawn from the Certification Program by the licensee at any time.

COSTS

What Does the Program Cost?

The initial administration fee will be based on the date of authorization to use the IGCC® permanent label in a manner that participation in the Certification Program will be on a February 1 to January 31 basis thereafter. If the authorization date is between August 1 and December 1, 50% of the administration fee for the first year will be charged for participation and will include one inspection prior to the following February 1 date. A licensee is invoiced for each item that is certified and listed separately in the Certified Products Directory. An additional invoice for testing laboratory fees will be issued upon fabrication of test units. Testing of these units will not begin until payment has been received. Should failure of these units occur during certification testing, any remaining balance will be refunded to the licensee. (Revised 8/1/99)

DOCUMENTS AND AGREEMENTS

License Agreement

This agreement, incorporating independent program administration and routine, periodic, independent plant inspections, sampling and evaluation, govern the relationship between IGCC and the licensee.

Future amendments or revisions to the License Agreement will be recommended by the IGCC® Certification Committee and enacted by the IGCC® Board of Governors.

Effective Date, Duration, and Termination

The License Agreement becomes effective on the date of its execution; has an initial duration of twelve months (adjustable to a February 1 to January 31 basis), and is automatically renewed for successive, twelve month periods, unless either party gives notice, at least sixty days prior to date of expiration, that cancellation is requested, or unless revoked by IGCC® for causes set forth in the document.

Administrative Service Agreement

This agreement entered into by IGCC® and Administrative Management Systems, Inc. (AMS) governs the relationship between IGCC® and AMS, the independent administrator. In general, it provides that the administrator:

- a) routinely inspects licensee manufacturing facilities twice per year, and during the first inspection in the second and subsequent years, witnesses fabrication of specimens for testing at one of the IGCC® testing laboratories
- b) has the right to witness any and all testing
- c) reviews all test reports in order to determine compliance of the certified product with the specifications
- d) inspects and approves all test laboratory facilities for use in this certification program (test laboratories are recognized or approved by the IGCC® certification committee)
- e) publishes and mails the IGCC® Certified Products Directory twice each year and handles all routine clerical duties of IGCC® with respect to certification matters
- e) acts as IGCC® treasurer, invoicing licensees, maintaining a bank account and dispersing funds (fiscal reports are made to the Board of Governors)
- h) attends all scheduled meetings of the IGCC® Certification Committee and
- i) in all of its actions acts in the name of IGCC®

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's operation. 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 seal insulating glass units of each licensee.

Certification Label

The licensee permanently affixes this certification mark to each unit of certified sealed insulating glass. This certification mark contains a code that refers to the listing in the Certified Products Directory. The listing then provides a product description including the company name, plant location, etc.

PROGRAM RESPONSIBILITY

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

The IGCC® 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 "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 IGCC® Board of Governors changes to be made in the license agreement

QUALITY ASSURANCE PROGRAM

IGCC® requires licensees to have a working quality assurance program for the fabrication of insulating glass. IGCC® does not define the type or details of a program; simply that one must be in place. Adherence is verified during twice per year plant visits. These requirements were adopted to improve the overall quality of IG units in the program, and also to satisfy requirements established by the Department of Housing and Urban Development, HUD.

A licensee's QA program, as a minimum, must have the following elements:

1. A quality manual
2. Operating procedures documenting how IG units are fabricated
3. A designated person responsible for quality assurance
4. Routine product or component checks

CERTIFICATION GUIDELINES AND INTERPRETATIONS

For guidance in labeling and certifying sealed insulating glass units the IGCC® Certification Committee has adopted the following:

ALWAYS

The following situations permit the licensee to **always** certify the sealed insulating glass units with the same IGCC® number.

GLASS

A.GL.1

Any change in glass thickness from that tested (3/16 or 1/4 inch is required in test specimens).

A.GL.2

Any change in glass tint or color from that tested (clear glass is required in test specimens).

A.GL.3

Any change in glass size from that tested (14 by 20 inches is required for test specimens).

A.GL.4

Any change in glass type (i.e. tempered, heat strengthened, laminated or patterned glass) from that tested (annealed glass is normally used in all test specimens).

A.GL.5

Any change in glass shape from that tested (rectangular glass is required in test specimens). This guideline permits the same IGCC® number for triangular, circle head, trapezoidal and other shapes.

A.GL.6

Any change in glass supplier from that tested.

A.GL.7 - Pyrolytic Coated Glass

Inorganically coated glass (i.e. pyrolytic applied low E or reflective coatings) are acceptable with the same IGCC® number as uncoated glass. (Adopted 9/11/96)

A.GL.8 - Edge Deleted Sputter Coated Glass

Edge deleted sputter coated glass (i.e. reflective or Low E) is acceptable with the same IGCC® number as uncoated glass. (Adopted 9/11/96)

SPACER

A.SP.1

Any change in air space dimension from that tested (one-quarter inch to one-half inch air space is allowed for testing).

A.SP.2

Any change in spacer wall thickness from that tested.

A.SP.3

Any change in spacer seam design (i.e. butt seam or lock seam) from that tested.

A.SP.4

Any change in supplier of spacer from that tested, everything remaining the same.

A.SP.5

Corners or connections which are soldered, welded, brazed or bent, but uncut, may be used interchangeably with the same IGCC® number. (Adopted 2/19/85)

A.SP.6

Corners may be changed to bent-uncut corners, using the same IGCC® number, provided the remaining connections utilize the same fastening technique as previously certified. (Adopted 10/18/89)

DESICCANT

A.DE.1

A manufacturer may use the same certification number for units fabricated having air space equal to, or greater than 1/4-inch, provided the weight of desiccant per inch of perimeter edge remains the same or is greater than the model tested. On units fabricated having 3/16-inch air spaces, a manufacturer may use the same certification number, provided the manufacturer maintains the same weight of desiccant per inch of perimeter edge or as close to that value as possible. (Modified 7/28/99)

A.DE.2

A change in supplier of the same generic type of desiccant from that tested will not require a different IGCC® number.

A.DE.3

The use of the same desiccant manufactured in different particle size ranges will not require a different IGCC® number.

A.DE.4

An increase in the percentage of molecular sieve in a blended desiccant (defined as a "molecular sieve/silica gel" mix) will not require retest unless the molecular sieve content exceeds 75% of weight. (Adopted 8/29/84)

A.DE.5

A licensee may change supplier of desiccant matrix provided that the licensee (1) immediately informs the administrator of the change, (2) provides written documentation that the adsorption capacity per perimeter edge of seal is equal to or greater than the matrix used in the original model, and (3) prepares test specimens at the time of the next scheduled inspection. (Adopted 4/29/97)

SEALANT

A.SE.1

Any increase in moisture vapor transmission path length is an acceptable alternate for labeling

A.SE.2

A licensee may use a temporary alternate sealant in the same generic class by (a) notifying the administrator of the change, and (b) having test specimens witnessed by the administrators representative at the next regular inspection, and (c) sending the test specimens to an approved testing laboratory within four weeks of the test specimens' fabrication date. The licensee may temporarily use the certification label on a provisional basis commencing with written notification of the administrator and end when test results are received by the administrator. (Modified 6/7/90)

NEVER

The following situations never permit the licensee to certify with the same IGCC® number. They require the use of a different IGCC® number.

SPACER

N.SP.1

A change in spacer material, i.e. aluminum to steel or any other material will require a different IGCC® number.

N.SP.2

A change in spacer surface finish, i.e. anodized to mill finish or hot dip to electro galvanized, will require a different IGCC® number.

N.SP.3

A change in corner design from soldered, welded, braised or bent to mechanical corner will require a different IGCC® number. (Modified (4/16/91)

N.SP.4

A change in corner key material to another material, except for same material as the spacer, will require a different IGCC® number. All plastic keys and joiners are considered generically equivalent. (Modified 7/28/99)

N.SP.5

If bent, uncut spacer corners or connections are changed to mechanically fastened spacer corners, a new IGCC® number is required. (Adopted 2/19/85)

DESICCANT

N.DE.1

A change in generic type of desiccant will require a different IGCC® number. Generic types, for purpose of this guideline, are silica gel, molecular sieve and blends of silica gel and molecular sieve up to 75% by weight molecular sieve. (Adopted 8/29/84)

SEALANT

N.SE.1

In a single sealant system, a change in generic type of sealant will require a different IGCC® number.

N.SE.2

In a two sealant system, a change in generic type of primary sealant will require a different IGCC® number.

N.SE.3

In a two sealant system, a change in generic type of secondary sealant will require a different IGCC® number.

N.SE.4

Any decrease in the minimum design moisture vapor transmission path length will require a different IGCC® number.

N.SE.5

Any increase in thickness of design moisture vapor transmission path (glass to spacer dimension) will require a different IGCC® number.

GENERAL

CLASS I - UNIT MODIFICATION

DEFINITIONS

Breather Tube - Tube inserted into the I.G. spacer and intended to be sealed prior to glazing of the unit.

Capillary Tube - Tube inserted into the I.G. spacer and intended to be left permanently open.

Capillary, Tube and How It Is Related to Membrane - IGCC® observes that organically sealed insulating glass units are not actually hermetically sealed, but rather are composed of sealing systems which demonstrate sufficiently low water and gas transmission rates as to pass the accelerated weathering conditions imposed in ASTM E773 and E774. We acknowledge that certain capillary tube designs may also control the passage of water and gases in such a manner as to allow breathing but still demonstrate the ability to pass the test conditions.

G.0 - (Added Guideline – 8/14/85)

An I.G. construction incorporating a permanently open capillary tube will be considered and listed as equivalent to a previously IGCC® program certified I.G. model without a capillary tube, provided the following applies:

- a. Material and construction of the units are identical, except for the inclusion of the capillary tubes.
- b. Both sets of I.G. units reach the same rating level when tested according to ASTM E774. The units with capillary tubes need only be tested once.
- c. The test must be run by an IGCC® approved lab.
- d. Preparation of test specimens need not be witnessed. However, the test result must be reviewed and approved by the administrator.

G.1 Breather Tube (Temporarily Open Type)

A licensee is permitted to insert the open end of a breather tube in a bag or container of desiccant during shipment of a specimen to the test laboratory. The breather tube must be sealed prior to testing. (Adopted 8/14/85)

G.2 Breather Tube (Temporarily Open Type)

The addition of a breather tube is acceptable, for shipping only, even though not in the test specimen. The breather tube should be properly sealed before installation. (Adopted 8/14/85)

G.3 Edge Protection

The addition of edge protection such as metal banding, metallic foil, barrier coat, etc., is acceptable with the same IGCC® number.

G.8 Muntins

Test specimens shall be constructed utilizing all of the components of the muntin system which are used in the ultimate product and shall be situated in a four lite divided arrangement in a diagonal or rectangular pattern. A licensee may use the same certification number for units manufactured without internal muntins providing the yearly testing has been accomplished in accordance with the above procedure. (Modified 4/17/91)

G. 15 Multiple Air Spaces

Multiple air space units may be certified with the same IGCC® number as single air space units, provided that the construction of each space complies with the guidelines for single space units; pressure communication of spaces is permitted, but not required.

G.19 Sputter Coated Glass (Coated to Edge)

A sputter coated insulating glass unit shall be considered equivalent to certified insulating glass units made with uncoated glass provided that the test level is the same for both sets of insulating glass units. Tests shall be by IGCC® approved laboratories. For reflective coatings, only the lowest light transmission product for which equivalency is desired need be tested provided that the outermost layer contacting the sealant is the same composition for all visible light transmissions. The equivalency shall apply for all coated products of the same generic type (i.e. metal or metal compounds that can be glazed monolithically) regardless of the source of manufacture.

For Low E sputtered coatings (which are non-edge deleted), equivalency must be established as above in insulating glass unit testing.

Preparation of the test specimens need not be witnessed; however, the test results must be reviewed and approved by the administrator.

A licensee needs to establish equivalency for a model only once. (Modified 9/10/96)

G.26 Desiccant in 1/2-inch Air-Space Test Units

In cases where units are made for testing with 1/2-inch air-space, glass thickness shall remain within the guidelines already established and that the desiccant quantity shall be limited to a maximum of filling one-half of the perimeter. (Adopted 8/28/86) However, if equivalent desiccant quantity to a standard 1/4-inch air space unit can be demonstrated, filling of all sides will be allowed (modified 9/1/87).

It should be noted that the limitation upon desiccant quantity is done in order to maintain the relationship of quantity of desiccant within the 1/2-inch air space test unit identical with that of a 1/4-inch air space test unit since the moisture vapor transmission area in each of these units is identical. Filling 4 spacers of a 1/2-inch air space would give manufacturers having this larger air-space unit tested an unfair advantage. It was asked to point out that testing of units containing a 1/2-inch air space will undergo greater stress during the test and, therefore, is considered a more difficult test in this configuration. (Adopted 8/28/86)

G.27 A sealed insulating glass unit that has been structurally modified, i.e. hole or holes for gas filling, shall be tested for certification assembled with standard production procedures including these modifications. At the option of the manufacturer, the units may be tested with gas or air in the interspace. Non-gas-filled units shall be considered equivalent providing construction is identical except for the omission of the gas filling hole/holes. (Adopted 9/8/88) To accommodate this modification a nominal 1/2 inch \pm 1/16 inch gas or air space maybe tested under this guideline. (Modified 3/29/89)

CLASS II - SPECIMEN

G.6 Specimens - Quantity

A minimum of 12 specimens up to a maximum 24 specimens, will be fabricated for testing purposes. (No more than 12 specimens may be shipped to the laboratory at one time.)

G.9 Specimens - Production

When a licensee is producing only unlabeled units at the time of an unannounced plant inspection, the licensee will be requested by the IGCC® inspector to label at least one unit in accordance with Guideline G.7 to permit completion of the inspection. (The label may be hand scribed or crayon marked on the inside surface.)

G.10 Specimens - Production

If a licensee is not producing units at the time of an unannounced inspection, a labeled unit from inventory may be cut apart for inspection, provided that the date code is within the inspection period.

G.11 Specimens - Production

A portion of the unannounced inspection will be used to determine whether a licensee is using the IGCC® label on unauthorized units.

G.12 Specimens - Shipment

Units fabricated for test during an unannounced inspection must be shipped within four weeks of the date of fabrication. If they are not, the inspection is considered invalid and another inspection must take place. All costs related to this guideline are to be borne by the licensee.

G.14 Specimen Frequency

The prototype test will be considered as the test for the first year of certification (providing application is made within 18 months from the date of the test report). This is effective for matters initiated after May 1982. The next fabrication for testing purposes will be in the first half of the second year.

CLASS III - LABELING

G.7 Labeling

The permanent label shall be etched, sand blasted, embossed, printed, painted, or otherwise permanently marked on the spacer or at least one component pane of the sealed unit.

G.17 Labeling - Qualification

A licensee may accept certification to any level passed on any test (retest, prototype, routine testing) under any IGCC® supervised testing conditions.

G.18 Labeling

The IGCC® permanent label must contain the company identification, company name, trade name, or company code consisting of letters, plant code, registered "IGCC®" mark, C, CB, or CBA rating level, and a date code spanning no more than a 12-month period, plus or minus one month and commencing with the beginning of each calendar year (effective for both the beginning and ending of each period). The plant code would only be required when there is more than one plant, with an IGCC® Certified Product operating under that company name. The labeling must be approved by the administrator. (Adopted 8/28/86)

CLASS IV - EQUIVALENCY

G.5 Gray Area

Situations that are not included in the "Always" or "Never" categories listed above, fall into the gray area. The gray area situation is covered by Minutes item 10.10.77.10 and is repeated here.

When there is a change and the licensee desires to use the same IGCC® number, the licensee shall immediately notify the administrator with all details of the change and also satisfy either 1 or 2 below:

- 1) establish equivalency by passing the same level of ASTM test as certified to by:
 - a) having specimens tested at an IGCC® independent testing laboratory or
 - b) having specimens tested at an in house (licensee) facility, testing done in house by a licensee must be done under the surveillance of the administrator.

Specimens must be fabricated and submitted to the laboratory within two weeks after notification of the administrator. During the test period, the licensee may temporarily use the certification label on a provisional basis or:

- 2) demonstrate the equivalency of the change to the satisfaction of the Certification Committee or a subcommittee. (specimens not required)

G.21 Transfer

If a licensee manufactures the same model using the same technology at a different location, a certification number with a temporary status will be issued provided that testing of the model is initiated at the next scheduled testing inspection. (Modified 9/10/96)

G.23

A licensee needs to establish equivalency for a model only once.

G.24

Special note should be taken that the ASTM E773 test method only provides testing for "Vision glass areas." As such, it is only these types of units that fall within the IGCC® Certification Program. This, however, in no way precludes the ultimate use of these units in other applications; e.g. Spandrel units. (Adopted 8/28/86) Labeled spacer may be used in IG units, other than vision glass; but in that case, certification does not apply. (Adopted 4/16/91)

G.28

A Current licensee with currently certified products may certify additional constructions or replace a certified construction at the same plant location by having specimens tested at an IGCC® independent testing laboratory. These samples need not be witnessed by an IGCC® representative. Upon completion of passing test results the construction shall be eligible for IGCC® certification. IGCC® witnessed testing must occur at the next regular inspection.

CLASS V - APPEALS, REVIEW AND DE-CERTIFICATION

G.13 Monetary

The administrator shall remove authorization to use the IGCC® permanent label from all of any licensee's products for failure to pay monies due to IGCC® within 60 days of invoice date (reference License Agreement A. 13 and B.6).

G.16 Appeals

In cases where a routine test fails to comply with the specifications.

- a) Upon notification of failure of routine test samples to reach the certified level, the licensee will be officially notified by certified mail; return receipt requested. Within 15 days the licensee must respond to the certified letter stating a retest fabrication is requested by paying all required administrative and test fees. If there is no response within 15 days, authorization to use the IGCC® permanent label will be removed.

If the retest option is accepted:

- 1) Request for retest option is granted by IGCC® only upon receipt in full of any administrative and retest fees within 15 days of date of mailing of the notification of failure.
 - 2) IGCC® will perform an inspection and witness fabrication of retest specimens within 45 days of payment of fees in 1) above.
 - 3) Licensee must ship and deliver retest specimens to the testing laboratory within 7 days of fabrication (Copy of shipping papers and delivery receipt must be received by IGCC® within 14 days of fabrication of retest specimens.)
- b) There is to be no change in certification status during the retest period.
 - c) All routine inspections will continue. Sample fabrication for subsequent routine testing of the questionable model will be suspended pending the outcome of the retest.
 - d) If the retest units comply, they shall be considered as the next routine test.
 - e) If the retest units fail, the licensee is issued a cease and desist order on use of the label immediately.
 - f) The licensee may choose to accept certification at any level passed by the retest, although it might be a lower level than originally desired.

G.20

Authorization to use the IGCC® permanent label will be removed if a routine inspection discloses that a licensee is labeling units containing the same authorized construction for the third time.

G.22

Clarification of due process appeal process under License Agreement, Paragraph A.11:

A licensee's appeal from a final adverse decision by the Administrator, under License Agreement Paragraph A.11, shall in the first instance be to the Certification Action Subcommittee of the Certification Committee, which acts as an executive committee for the Certification Committee in order to provide a prompt hearing for the Licensee and to act on the Licensee's appeal as quickly as possible. A decision by the Certification Action Subcommittee favorable to the Licensee shall be a final decision. A decision by the Certification Action Subcommittee adverse to the Licensee may be appealed to the full Certification Committee for a due process review and hearing. Such an appeal to the Certification Committee must be made in writing within 30 days of an adverse decision by the Certification Action Subcommittee and this appeal will be heard at the next regularly scheduled meeting of the Certification Committee. Pending a hearing by the Certification Committee on such an appeal, the Licensee may maintain certification for the product at issue.

SPECIFICATION USED FOR SEALED INSULATING GLASS

ASTM E774

Specification may be obtained by writing to.....

ASTM
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Telephone: (610) 832-9585

The program requires that the manufacturer shall certify and permanently label all sealed insulating glass units to class (C, CB, or CBA) through the Insulating Glass Certification Council (IGCC®) Program.

**IGCC® APPROVED LABORATORIES PRESENTLY CONDUCTING TESTS IN
ACCORDANCE WITH ASTM E773 & E774**

- | | | | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 30 | Architectural Testing Inc.
130 Derry Ct
York, PA 17402-9405
Attn: Todd Burroughs
Phone: (717) 764-7700
Fax: (717) 764-4129 | 50 | Bodycote ORTECH Inc.
2395 Speakman Drive
Mississauga, Ontario L5K 1B3 Canada
Attn: Allan Major or David Bailey
Phone: (905) 822-4111 x-585
Fax: (905) 823-1446 |
| 35 | Architectural Testing Inc.
2524 East Jensen Ave.
Fresno, CA 93706
Attn: Leaton Kirk
Phone: (559) 233-8705
Fax: (559) 233-8360 | 45 | ETC; Jim Spetz Testing Division
29633 Lakeland Blvd.
Wickliffe, OH 44092
Attn: James L. Spetz, PE
Phone: (440) 944-3665
Fax: (440) 944-3671 |
| 40 | Architectural Testing Inc.
587 First Street S.W.
New Brighton, MN 55112
Attn: Dan Braun
Phone: (651) 636-3835
Fax: (651) 636-3843 | 60 | Intertek Testing Services
8431 Murphy Drive
Middleton, WI 53562
Attn: Rocco Moro
Phone: (608) 836-4400
Fax: (608) 831-9279 |
| | | 55 | Performance Testing, Inc.
4076 148 th Avenue N.E.
Redmond, WA 98052
Attn: John DeRose
Phone: (425) 883-9788
Fax: (425) 869-5266 |

Adopted: May 13, 1977
Revised: August 1, 1981
Revised: January 15, 1986

PARTICIPANT'S AGREEMENT

I have read the PURPOSES of the INSULATING GLASS CERTIFICATION,COUNCIL and hereby declare that I have a legitimate interest in the goals of the Council. I further declare that I do not manufacture insulating glass units nor am I employed by any company which is in such manufacturing business; as such I do not qualify to become a Licensee of the Insulating Glass Certification Council.

In view of the above declaration, I wish to be recognized at a "participant" in the Insulating Glass Certification Council.

Print Name: _____ Date: _____
Address: _____ Phone: _____
City: _____ State: _____ Zip: _____

My interest in the Council is: _____
Signature: _____

ARTICLE II

SECTION I - PURPOSES

The purposes of the Insulating Glass Certification Council shall be:

1. Promote public benefit by encouraging maintenance of the highest standards of excellence in the manufacture of insulating glass.
2. To encourage and cooperate in developing standards related to performance characteristics of insulating glass products.
3. To plan, organize, direct, coordinate and sponsor a certification program for insulating glass manufacturers to assure that their products meet applicable standards and/or performance requirements, adopted or approved by the Council.

ANNUAL FEE

The annual fee for a non-manufacturing participant will be \$350.00 per company.

There will be no fee for public interest or consumer participants.

CREDIBILITY IN CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION

August 1, 2000

**INSULATING GLASS CERTIFICATION COUNCIL, INC.
CERTIFICATION PROGRAM FOR SEALED INSULATING GLASS UNITS
LICENSE AGREEMENT**

This agreement, made this _____ day of _____, 20___, by and between INSULATING GLASS CERTIFICATION COUNCIL, INC., a corporation having its administrative office at P.O. Box 9, Henderson Harbor, NY 13651 hereinafter called "LICENSOR"

and _____ having its principal office

at _____
hereinafter called "LICENSEE"

WITNESSETH

WHEREAS, Licensor is sponsoring a Certification Program for Insulating Glass Units, which will provide for (1) the validation of a manufacturer's certification of such products by means of independent laboratory testing to the requirements of the Specification(s) and applicable Test Method(s) and ASTM Standards; and under the further terms and conditions of the Certification Program set forth in this Agreement and the Program's Procedural Guide, and also providing for (2) the stipulation by each such manufacturer that the manufacturer maintains a quality assurance program which covers the production of all the units to which above clause (1) refers.

WHEREAS, The responsibilities of IGCC®, the IGCC® Administrator and the independent Laboratories are limited to the tasks set forth in this Certification Program; they do not endorse, warrant, or guarantee products Validated or Certified thereunder, and WHEREAS, Licensor is willing to accept participation in said Certification Program by all manufacturers of Insulating Glass Units under the terms set forth herein; and

WHEREAS, the Licensor's registered labels shall be permitted to be affixed to the Insulating Glass Units complying with the pertinent requirements of the Program; and

WHEREAS, the Licensor shall contract for the complete administration of the Program and the Administrator shall contract for services with the independent laboratories which meet the ethical, financial, and business experience standards of the American Council of Independent Laboratories or National Society of Professional Engineers for performance of tests and other administrative duties as are herein provided; and

WHEREAS, the Licensor shall appoint a "Certification Committee" comprised of representatives of Participants and the Public Interest members of the Board of Governors acting as a liaison between Licensor, Licensees and interested parties: meetings of this committee shall be called by the Chairman of the Certification Committee at least once each year; and

WHEREAS, the procedural guide, to be developed in accordance with paragraph B.4 shall be adhered to both by the Licensor and the Licensee; and

WHEREAS, the Administrator shall conduct all aspects of the program in accordance with the highest nationally recognized standards for conduct of such a program including HUD standards for accreditation of the Program and the Administrator as set forth in HUD's "Use of Materials Bulletin No. 82" ("HUD Building Product Standards and Certification Program for Sealed Insulating Glass Units"), which requires an accredited Program to include a quality assurance provision such that all participating manufacturers shall have quality assurance programs covering the production of the units to which Whereas Clause No. 1 above refers.; and

WHEREAS, Licensee is willing to participate in and support said Program under the terms and conditions set forth in the Agreement.

Therefore, be it

RESOLVED, that it is agreed by and between the parties hereto as follows:

LICENSEE:

A.1) Shall sign this Agreement by providing the signature of its corporate officer or authorized representative, and also its primary IGCC® Engineering or Quality Dept. Contact, where noted herein.

A.2) Shall allow the Administrator's representative, without prior notice, free access at any time during regular business hours, to Licensee's place of manufacture of Insulating Glass Units certified hereunder and to witness the manufacture of samples which are to be tested for compliance with the requirements. Licensee's refusal to permit access for inspection purposes hereunder may be due cause for removal of its entire product listing from the Certification Directory and the withdrawal of its rights to affix Certification Labels thereto. Acceptable reasons for not permitting entrance for inspections would include strikes, acts of God, and circumstances beyond immediate control of the manufacturer. Areas which may have been set aside for research or prototype development may be restricted. It is understood that the Administrator or his representative shall be allowed to pick up samples from the field for inspection or testing. It is understood that one test per year will be made on each model to be certified and that said tests will be made at the laboratory selected by the Administrator or Licensee from the approved list. Results of each test shall be promptly mailed to the IGCC® Administrator. IGCC® will notify the Licensee of compliance or non-compliance. It is further understood that routine expense of sampling and testing will be borne by the Licensee. The Licensor will charge each Licensee accordingly and so contract with the Administrator. The Administrator will contract for testing with approved testing laboratories. Expenses for packaging, shipping, and purchasing of glass for testing will also be borne by the Licensee. These costs will be handled directly between the Administrator and each Licensee.

A.3) Shall affix to each of its certified products the permanent Certification Label, number and class assigned by the Licensor:

- a) Only at the time and place of manufacture; and
- b) Only to Insulating Glass Units of Licensee's own manufacture, which have been so approved by the Licensor.

A.4) Shall not sell, transfer or otherwise dispose of Certification Labels in any manner other than affixing to Licensee's certified production.

A.5) Shall not affix hereafter the IGCC® Certification Label, or Participant's Certification Label registered with Licensor, 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. A model change shall be as defined by the IGCC® Certification Committee.

A.6) Shall upon a finding by the Licensor that a certified product of Licensee has been changed as defined by the Certification Committee have thirty (30) days in which to submit a request for waiver of retest or request a new inspection and retest at Licensee's expense if no waiver is granted. Failure of Licensee to act as required immediately

August 1, 2000

above shall constitute due cause for exclusion of this product from the program.

A.7) May withdraw a certified product from the Program by written declaration and request for removal of said product from the Licensor's listing signed by the authorized representative of the Licensee.

A.8) Shall use all practical means at its command continuously to assure that its products hereunder certified fully comply with the Specification requirements, and are manufactured in the same manner as test specimens, and are subject to a quality assurance program maintained by Licensee, and Licensee shall so stipulate to the Administrator's representatives during the periodic visits of said representatives to Licensee's facilities described above in Section A.2) or when otherwise requested by the Administrator.

A.9) Shall refrain from using the terms implying or claiming certification, validation, accreditation, etc. in connection with advertising referring to products which have not been validated, or from which validation of certification claim has been withheld or withdrawn or any other statement or term which might be interpreted as compliance with this program.

A.10) In connection with the advertising of model systems which the Licensor has approved and granted a certification number or label, the Licensee must use the following concepts as guidelines: Licensor (IGCC®) Sponsors the Certification Program. Licensee (Manufacturer) certifies that the product is the same as the model which has been tested. Administrator validates the test results through Inspections according to the Licensor's guidelines.

A.11) Shall abide by the decision of the Administrator as to the compliance or non-compliance of Licensee's products, determined in accordance with the requirements of the specification testing of such products. It is understood that the Administrator shall be the sole judge of compliance or non-compliance with the Specifications, for purposes of Licensor's certification of such a product under this Program. Where questions involving interpretation arise, the matter will be referred to the Certification Committee for ruling.

A.12) Agrees that notice regarding the status of any of its certified products shall be carried in the Certification Directory.

A.13) Shall pay the participation fees shown in the Schedule of Fees, which is an APPENDIX hereof, upon signing of this Agreement and at each annual renewal thereof. It is understood, that this Schedule of Fees may be changed from time to time by the Licensor.

A.14) Agrees that the Administrator may, at his discretion, use any and all data, exclusive of Licensee's Company name, address, proprietary product designation or any other information which may provide clues as to the manufacture of the products, for the purpose of comparing test methods and correlating test methods with field performance, etc.

A.15) Shall legibly and permanently mark each piece of its certified product in accordance with the marking requirements of the applicable standards and, in addition, include a symbol identifying the plant in which the product was made to comply with the standard for the purpose of identification under this Certification Program.

A.16) Shall furnish Licensor with any information regarding its product as may be necessary to properly identify Licensee's Certified Product for listing in Licensor's Certification Directory.

A.17) Shall regularly mail to the Administrator, at the same time as such material is furnished others, copies of its catalogs and other literature, excluding price and discount information, where such materials list Licensee's products certified hereunder.

A.18) Shall abide by and comply with all procedural details which the Administrator may prescribe for the implementation of the Certification Program, provided that such procedural details are not in consistent with the purposes of this License Agreement.

A.19) Shall have the right, at its option, to designate a nominee from Licensee's organization for consideration by the Board of Governors for appointment to the Certification Committee.

LICENSOR:

B.1) Shall prepare and publish at least twice each year, with such interim supplements as may be desirable, a Certification Directory containing a listing of the Certified Insulating Glass Products which have been found by test to be in compliance with each required specification of each Licensee then in good standing with Licensor. This directory shall include the Licensee's assigned Certification Number, Name, Location and qualified class or classes (CBA).

B.2) Shall promptly mail substantial quantities of each Directory and supplement to door, sash, and building products manufacturers, glazing contractors, home builders, architects, regulatory agencies and code-making groups, and publicize the Directory to trade publications.

B.3) Shall provide and maintain a list of approved laboratories qualified to perform tests required hereunder and to authorize tests herewith specified. Said list of approved laboratories is to be developed by the Certification Committee.

B.4) Shall prepare and maintain a procedural guide and the standard forms which may be adopted for use with the Licensee and the approved laboratories in connection with the operation of the Certification Program.

B.5) Shall hold all test reports and correspondence with Licensees and others, relating to Licensee's products or tests, in strict confidence, except for communication necessary to effect proper listing in the Certification Directory.

B.6) Shall not list in or remove from the Certification Directory any product or Licensee except on due notification from the Administrator to do so, except as provided in Paragraph A.7 above or because Licensee fails to pay applicable fees as provided in A.13 above.

B.7) Shall enter into a contract with an independent agency, whereby this independent agency will act as Administrator of the Certification Program for and on behalf of Licensor, to provide and authorize all sampling and testing, review and approve test data, perform periodic evaluations or other duties and functions herein provided for.

B.8) Shall conduct the Program in accordance with HUD standards for HUD accreditation of the Program as set forth in HUD's "Use of Materials Bulletin No. 82" ("HUD Building Product Standards and Certification Program for Sealed Insulating Glass Units").

IT IS FURTHER AGREED THAT:

C.1) A certification test hereunder denotes and is limited to a test in accordance with the requirements of the appropriate specifications and related test methods.

C.2) Each branch or affiliated plant of each Licensee manufacturer must be registered individually, and products therefrom tested and certified separately and apart from products manufactures in other plants or branches of any Licensee manufacturer.

C.3) A procedure for handling complaints of non-compliance which provides for samples of like product to be provided by Licensee in a specified manner for repetition of tests within thirty (30) days, the total cost of which, including test specimens, is to be borne by the complainant, unless the test proves non-compliance, in which case the costs will be borne by the Licensee; tests to be initiated by the Licensor promptly upon receipt of a complaint in writing along with the appropriate surety deposit.

C.4) This agreement shall become effective on the date of signing and shall extend for a period of 12 months and shall be renewed automatically for successive periods of 12 months each, unless Licensor or Licensee, at least sixty (60) days prior to the date of expiration, gives notice in writing that cancellation or termination is requested and unless revoked by Licensor for causes set forth in this Agreement.

C.5) If this agreement is terminated, then upon the effective date of such termination, Licensee shall:

a) Not affix the registered quality Certification Labels to any product which Licensee shall thereafter manufacture; and

August 1, 2000

b) Make no further reference to, or use of, Licensor's Certification Program or registered Certification Labels.

C.6) Licensor, in the event it shall be necessary to exclude Licensee from participation in the Certification Program in accordance with the provisions hereof, may do so by giving Licensee thirty (30) days written notice of Licensor's termination of the License Agreement.

C.7) The interpretation of this Agreement and the parties performance thereunder shall be governed by the laws of the State of Illinois; and both parties acknowledge and agree that any and all actions brought by Licensor or Licensee for the enforcement of any right or remedy hereunder must be instituted in the Court having jurisdiction thereof located in the State of Illinois.

C.8) In the event any part or parts of this Agreement are found to be void, the remaining provisions shall nevertheless be binding with the same effect as though the void parts were deleted.

C.9) The use of any IGCC® Certified Label or registered participant's label on any unqualified product, or the use of any such registered Certification Label by a manufacturing or assembly or other facility other than that registered, will not be permitted by the Licensee, their employees, their representatives, and their agents. If the use of the IGCC® or registered Certification Label in contravention of this Agreement is discovered, after a due process hearing review by the Certification Committee, the Licensor will have cause to institute all or any of the following actions: a) Revocation of license. b) Imposition of a fine of one thousand dollars (\$1,000). c) Legal action preventing the Licensee from having IGCC® or registered Certification Labels printed, attached, or used in any manner, the entire cost of such legal action to be borne by the Licensee.

C.10) The Licensee shall pay to the Licensor reasonable attorney's fees, including attorney's fees for services in appellate proceedings, occasioned by reason of Licensee's breach of any of the terms of this Agreement, provided that Licensee's breach shall have been determined by judgment of a court of competent jurisdiction and if

such judgment be appealable that the time for Licensee's appeal therefrom is terminated. This shall not be construed so as to prohibit out-of-court settlement.

C.11) In the event Licensor promptly notified all those to whom it has sent the then most recent issue of the Certification Directory or Supplement thereto, as well as the National Better Business Bureau and the trade press, regarding any incorrect listing or reference to Licensee's product published in any Certification Directory, supplement thereto, or elsewhere, Licensee agrees not to hold Licensor liable in any way for any damage caused by such incorrect listing or reference, unless such damage was the result of an intentional tort, willful act or gross negligence by Licensor.

C.12) Licensee shall indemnify and hold Licensor harmless as to any expense whatsoever for any claims, losses, or defense of claims or losses, which may be asserted against Licensor by reason of this Agreement and services performed hereunder, shall name the Licensor, as its interest may appear, as an additionally insured party on any products liability insurance policy owned by the Licensee which affects those products of the Licensee certified under this Agreement; and proof of such coverage shall be sent by the Licensee to the Licensor within fifteen (15) days from the date of Certification or the date such coverage is secured, whichever first occurs.

C.13) Neither party shall make use of the others' trademarks, trade names or name in any manner without the prior written approval of the other provided each party hereby authorizes the other, during the term of this Agreement, to state that the Licensee is a participant in this Certification Program.

THIS LICENSE AGREEMENT may not be transferred, assigned, or otherwise disposed of to any other company, individual, or successor company without the express prior written consent of both Licensee and Licensor.

LICENSEE: Company _____

Street Address _____

City, State and Zip _____

Telephone Number _____ Fax Number _____

Signed By _____ Title _____
(Corporate Officer or Authorized Representative)

Date _____

Signed By _____ Title _____
(Primary IGCC® Engineering or Quality Dept. Contact)

Date _____

LICENSOR: INSULATING GLASS CERTIFICATION COUNCIL, INC.

By _____ Title _____

Date _____

Insulating Glass Certification Council
P.O. Box 9

Henderson Harbor, NY 13651

Telephone: (315) 646-2234 Fax: (315) 646-2297

*A COPY SIGNED BY LICENSOR WILL BE RETURNED TO LICENSEE.

February 2000 Revision

INSULATING GLASS
IGCC[®]
CERTIFICATION COUNCIL

P.O. Box 9
Henderson Harbor, NY 13651

FORWARDING AND ADDRESS
CORRECTION REQUESTED

BULK RATE
U.S. POSTAGE
PAID
HAZLETON, PA
PERMIT NO. 281