CERTIFIED PRODUCTS DIRECTORY
sealed insulating glass

IGCC
Insulating Glass Certification Council

Credibility in Industry Certification through Active Public Participation
IGCC DIRECTORY ORDER FORM

PLEASE SEND . . . _______ copies of IGCC® Certified Products Directory at $1.50/copy = $___________ to:

______________________________
Name

______________________________
Company

______________________________
Address

______________________________
City    State    Zip Code

8/82
IGCC®

Credibility in Industry Certification through Active Public Participation.
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Concept</td>
<td>4</td>
</tr>
<tr>
<td>Certified Products</td>
<td>5</td>
</tr>
<tr>
<td>Prototypes in Progress</td>
<td>10</td>
</tr>
<tr>
<td>Board of Governors</td>
<td>11</td>
</tr>
<tr>
<td>Communications</td>
<td>11</td>
</tr>
<tr>
<td>Roster</td>
<td>12</td>
</tr>
<tr>
<td>Participants</td>
<td>13</td>
</tr>
<tr>
<td>IGCC® Label Requirements</td>
<td>15</td>
</tr>
<tr>
<td>Past IGCC® Presidents' Recognition</td>
<td>16</td>
</tr>
<tr>
<td>Meetings of the Certification Committee</td>
<td>16</td>
</tr>
<tr>
<td>Advertising Guideline</td>
<td>17</td>
</tr>
<tr>
<td>Procedural Guide</td>
<td>18</td>
</tr>
<tr>
<td>Guidelines &amp; Interpretations.</td>
<td>22</td>
</tr>
<tr>
<td>IGCC® Approved Laboratories</td>
<td>27</td>
</tr>
<tr>
<td>Participant's Agreement</td>
<td>28</td>
</tr>
</tbody>
</table>

©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 E774-81 for Sealed Insulating Glass." This specification basically classifies sealed units into three categories; C, B, or A, 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 product information claims.

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 per cent of the voting rights, and can veto any action, regardless of the number present at a meeting. This insures against industry dominance of IGCC action.

The organization is operated in compliance with the American National Standard Practice for Certification Procedures Z34.1-1947 (R1959).

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 E774-81. 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, American Society for Testing and Materials, the National Bureau of Standards, FHA, HUD, Public Interest Persons, the Industry, and particularly consumers. Without input from such a broad cross-section, this program would not be possible.
<table>
<thead>
<tr>
<th>Licensee</th>
<th>IGCC Number</th>
<th>Corner Construction</th>
<th>Spacer</th>
<th>Desiccant</th>
<th>Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.B.S. Enterprises, Inc.</td>
<td>IGCC-166 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>148 N.E. 48, Oklahoma City, Oklahoma 73118</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>405-528-7031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Coating Technology, Inc.</td>
<td>IGCC-248 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>306 Beasley Drive, Franklin, Tennessee 37064</td>
<td>IGCC-253 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>618-790-6001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Master Corporation</td>
<td>IGCC-216 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>HMB</td>
</tr>
<tr>
<td>1211 Ford Road, Bensalem, Pennsylvania 19020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>215-638-0600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluwini Corporation</td>
<td>IGCC-214 C</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>HMB</td>
</tr>
<tr>
<td>99 Scott Avenue, Brooklyn, New York 11237</td>
<td>IGCC-305 C</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PU</td>
</tr>
<tr>
<td>212-466-6307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Armour World Wide Glass Company</td>
<td>IGCC-144 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>9401 Ann Street, Santa Fe Springs, California 90670</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>213-723-0081</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bennett's Insulating Plant</td>
<td>IGCC-157 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS/SG</td>
<td>HMB</td>
</tr>
<tr>
<td>2131 South 300 West, Salt Lake City, Utah 84115</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>801-488-2211</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. E. Berkowitz, Inc.</td>
<td>IGCC-249 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>Delsea Drive &amp; Harvard Avenue Route 47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westville, New Jersey 08093</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>609-456-7800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better Thermo Unit 2+2</td>
<td>IGCC-164 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>1530 Landmoor Road, Elk Grove Village, Illinois 60007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>312-593-2980</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binning's Building Products</td>
<td>IGCC-239 CB</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>HMB</td>
</tr>
<tr>
<td>Walser Road P.O. Box 858</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexington, North Carolina 27292</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704-249-9193</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitol Glass and Aluminum Corp.</td>
<td>IGCC-176 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>3515 South 300 West, Salt Lake City, Utah 84115</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>801-268-2521</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardinal IG</td>
<td>IGCC-155 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>Iowa 25 North</td>
<td>IGCC-311 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>Greenfield, Iowa 50849</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>515-743-2134</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardinal IG</td>
<td>IGCC-244 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>711S West Lake Street, Minneapolis, Minnesota 55426</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>612-929-0317</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardinal IG</td>
<td>IGCC-181 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>1011 East Madison, Spring Green, Wisconsin 53588</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>608-588-7415</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrome-A-Seal Insulating Glass</td>
<td>IGCC-152 CB</td>
<td>NK/BR</td>
<td>ST</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>Chromalloy Fabrication Division</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Belle Avenue Lewistown, Pennsylvania 17044</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>717-242-2571</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

August 1, 1982; IGCC 5
<table>
<thead>
<tr>
<th>Licensee</th>
<th>IGCC Number</th>
<th>Corner Construction</th>
<th>Spacer</th>
<th>Desiccant</th>
<th>Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Seal Glass Company, Inc.</td>
<td>IGCC-161 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>1976 Bagwell Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flint, Michigan 48501</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>313-744-2220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economy Glass Corporation</td>
<td>IGCC-218 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>315 Columbus Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boston, Massachusetts 02116</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>617-536-2100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ellstrom Manufacturing, Inc.</td>
<td>IGCC-165 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>1540 N.W. Ballard Way</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seattle, Washington 98107</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-799-3000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energlpane Insulating Glass Corporation</td>
<td>IGCC-267 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>4716 West Lake Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicago, Illinois 60644</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>312-921-0200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.G.M. Insulating Glass Co., Inc.</td>
<td>IGCC-223 CBA</td>
<td>W</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>895 Motor Parkway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hauppauge, New York 11787</td>
<td>IGCC-224 CBA</td>
<td>W</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>516-692-2600</td>
<td>IGCC-225 CBA</td>
<td>W</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>Floral Glass Industries, Inc.</td>
<td>IGCC-266 CBA</td>
<td>W</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>Division of F.G.M. Insulating Glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>224 Sandbank Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheshire, Connecticut 06410</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>203-272-2211</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Glass Corporation</td>
<td>IGCC-245 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
<td>PS</td>
</tr>
<tr>
<td>11205 East 37th Avenue</td>
<td>IGCC-269 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
<td>HMB</td>
</tr>
<tr>
<td>Denver, Colorado 80239</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>303-371-5511</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graham Architectural Products Corp.</td>
<td>IGCC-167 C</td>
<td>DCK</td>
<td>AL</td>
<td>MS/SG</td>
<td>HMB</td>
</tr>
<tr>
<td>1551 Mt. Rose Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>York, Pennsylvania 17403</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>717-848-3755</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Havlin-Witkin Corporation</td>
<td>IGCC-160 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>750 Walsh Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 666</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Clara, California 95052</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>915-929-4401</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hordis Brothers, Inc.</td>
<td>IGCC-184 C</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>825 Hylton Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pennsauken, New Jersey 08110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>609-662-0400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hordis Brothers, Inc.</td>
<td>IGCC-182 C</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>1548 Stone Ridge Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone Mountain, Georgia 30083</td>
<td>IGCC-183 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>404-934-0333</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hordis Brothers, Inc.</td>
<td>IGCC-185 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>P.O. Box 324</td>
<td>IGCC-186 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>Warrenton, Missouri 63383</td>
<td>IGCC-187 C</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>314-465-3452</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hurd Millwork Company</td>
<td>IGCC-276 CB</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>520 South Whelen Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medford, Wisconsin 54451</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>715-748-2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illinois Valley Glass &amp; Mirror Co., Inc.</td>
<td>IGCC-147 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>HMB</td>
</tr>
<tr>
<td>3300-10 N.E. Adams Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peoria, Illinois 61603</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>309-682-6603</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 IGCC; August 1, 1982
<table>
<thead>
<tr>
<th>Licensee</th>
<th>IGCC Number</th>
<th>Corner Construction</th>
<th>Spacer</th>
<th>Desiccant</th>
<th>Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insolair Industries, Inc.</td>
<td>IGCC-238</td>
<td>CBA</td>
<td>W</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>908 Aldridge Road Vacaville, California 95688</td>
<td>IGCC-146</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>707-446-4500</td>
<td>IGCC-221</td>
<td>CBA</td>
<td>DCK</td>
<td>ST</td>
<td>MS/SG</td>
</tr>
<tr>
<td>Kensington Manufacturing Company</td>
<td>IGCC-222</td>
<td>CBA</td>
<td>DCK</td>
<td>ST</td>
<td>MS/SG</td>
</tr>
<tr>
<td>P.O. Box 571 Leechburg, Pennsylvania 15656</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>412-645-6133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOF Glass</td>
<td>IGCC-221</td>
<td>CBA</td>
<td>DCK</td>
<td>ST</td>
<td>MS/SG</td>
</tr>
<tr>
<td>P.O. Box 408 Clinton, North Carolina 28328</td>
<td>IGCC-222</td>
<td>CBA</td>
<td>DCK</td>
<td>ST</td>
<td>MS/SG</td>
</tr>
<tr>
<td>919-892-7101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marvyn Windows</td>
<td>IGCC-281</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
</tr>
<tr>
<td>P.O. Box 100 Warroad, Minnesota 56763</td>
<td>IGCC-177</td>
<td>CB</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>2636 N.W. 26th Avenue P.O. Box 10166 Portland, Oregon 97210 503-226-2511</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norco Windows, Inc.</td>
<td>IGCC-243</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
</tr>
<tr>
<td>P.O. Box 309 Hawkins, Wisconsin 54630 715-585-6377</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North American Manufacturing, Inc.</td>
<td>IGCC-232</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>551 Concord Street Holliston, Massachusetts 01746</td>
<td>IGCC-261</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>617-429-6300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North East Window Systems, Inc.</td>
<td>IGCC-299</td>
<td>CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>1300 South Salina Street Syracuse, New York 13202</td>
<td>IGCC-300</td>
<td>CBA</td>
<td>NK</td>
<td>AL</td>
<td></td>
</tr>
<tr>
<td>315-474-0700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northland Glass Industries</td>
<td>IGCC-206</td>
<td>CB</td>
<td>ALK</td>
<td>AL</td>
<td>MS</td>
</tr>
<tr>
<td>14630 20th Avenue, North Plymouth, Minnesota 55441</td>
<td>IGCC-240</td>
<td>CBA</td>
<td>ALK</td>
<td>ST</td>
<td>MS</td>
</tr>
<tr>
<td>612-559-1803</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The O. M. Edwards Company, Inc.</td>
<td>IGCC-158</td>
<td>CBA</td>
<td>ALK</td>
<td>ST</td>
<td>MS</td>
</tr>
<tr>
<td>501 Plum Street Syracuse, New York 13204 315-422-0466</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>308-652-3350</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPG Industries, Inc.</td>
<td>IGCC-285</td>
<td>CBA</td>
<td>ALK</td>
<td>ST</td>
<td>MS</td>
</tr>
<tr>
<td>17851 N.W. Miami Court Miami, Florida 33169 305-652-3350</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPG Industries, Inc.</td>
<td>IGCC-159</td>
<td>CBA</td>
<td>ALK</td>
<td>ST</td>
<td>SG</td>
</tr>
<tr>
<td>500 Third Avenue Ford City, Pennsylvania 16226 412-762-1211</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

August 1, 1982; IGCC 7
<table>
<thead>
<tr>
<th>Licensee</th>
<th>IGCC Number</th>
<th>Corner Construction</th>
<th>Spacer</th>
<th>Desiccant</th>
<th>Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quakerpane, Inc.</td>
<td>IGCC-180 CBA</td>
<td>NK/W</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>357 Fairview Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quakertown, Pennsylvania 18951 215-638-1445</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salem Aluminum Window Co., Inc.</td>
<td>IGCC-168 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>HMB</td>
</tr>
<tr>
<td>1337 Madison Street, N.E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salem, Oregon 97303</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>503-364-0126</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solar Seal Company</td>
<td>IGCC-117 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>213 Turnpike Street</td>
<td>IGCC-163 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>Stoughton, Massachusetts 02072</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>617-344-9022</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solar Seal South, Inc.</td>
<td>IGCC-148 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>100 South Leadbetter Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ashland, Virginia 23005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>804-798-6051</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soule Glass Industries</td>
<td>IGCC-156 CB</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>89 Hildreth Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangor, Maine 04401</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>207-945-9481</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Wholesale Glass, Inc.</td>
<td>IGCC-141 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>3200 Austell Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marietta, Georgia 30060</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>404-434-2041</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempglass, Inc.</td>
<td>IGCC-264 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/S</td>
</tr>
<tr>
<td>291 &quot;M&quot; Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willis Day Industrial Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perrysburg, Ohio 43551</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>419-666-2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermo Ohio Plate, Inc.</td>
<td>IGCC-114 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS</td>
<td>B/PS</td>
</tr>
<tr>
<td>2345 Industrial Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sidney, Ohio 45365</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>513-498-4621</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermo Systems, Inc.</td>
<td>IGCC-259 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS</td>
<td>B/S</td>
</tr>
<tr>
<td>5012 Packinhouse Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver, Colorado 80216</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>303-623-6939</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twin Pane; Division of Philips Industries, Inc.</td>
<td>IGCC-171 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>31251 Industrial Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livonia, Michigan 48150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>319-922-8400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultrakem</td>
<td>IGCC-151 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS/SG</td>
<td>HMB</td>
</tr>
<tr>
<td>960 Seville Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wadsworth, Ohio 44281</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>210-336-3523</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viracon, Inc.</td>
<td>IGCC-170 CBA</td>
<td>DCK</td>
<td>AL</td>
<td>MS/SG</td>
<td>PS</td>
</tr>
<tr>
<td>1001 Foster Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bensenville, Illinois 60106 312-599-3750</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viracon, Inc.</td>
<td>IGCC-153 CBA</td>
<td>ALK/S</td>
<td>AL</td>
<td>MS/SG</td>
<td>B/PS</td>
</tr>
<tr>
<td>800 Park Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owatonna, Minnesota 55060</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>507-451-9555</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather Shield Mfg., Inc.</td>
<td>IGCC-178 CBA</td>
<td>NYK</td>
<td>AL</td>
<td>MS</td>
<td>PS</td>
</tr>
<tr>
<td>679 East Allman Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 309</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medford, Wisconsin 54451</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>715-748-2100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CERTIFIED PRODUCTS

Key

Sealant:
PS = Polysulfide
PU = Polyurethane
B = Polyisobutylene
S = Silicone
HMB = Hot melt butyl
BSS = Butyl sealant spacer

Desiccant:
MS = Molecular sieve
SG = Silica gel

Corner:

Spacer:
AL = Aluminum
ST = Steel

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.
"PROTOTYPE IN PROGRESS"

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

MANUFACTURER

AIR MASTER CORPORATION
BENSALEM, PENNSYLVANIA

ALUWIN CORPORATION
BROOKLYN, NEW YORK

AMACOR INDUSTRIES, INC.
DELMONT, PENNSYLVANIA

AMERICAN TEMPERING, INC.
BENSALEM, PENNSYLVANIA

CANADIAN GLASS INDUSTRIES LTD.
TORONTO, ONTARIO, CANADA

DUAL-PANE, INC.
BUFFALO, NEW YORK

ENVIROLITE ENTERPRISES, INC.
WEST HAVEN, NEW YORK

ECKER MANUFACTURING CORPORATION
NEW YORK, NEW YORK

GOLD SEAL ALUMINUM MANUFACTURING, INC.
BOHEMIA, NEW YORK

INTERSTATE GLASS COMPANY, INC.
SOUTH BEND, INDIANA

MANNIX INDUSTRIES, INC.
BRENTWOOD, NEW YORK

MARVIN WINDOWS
WARROAD, MINNESOTA

MULTIPANE OF NEW ENGLAND, INC.
NEWTONVILLE, MASSACHUSETTS

NORCO WINDOWS, INC.
HAWKINS, WISCONSIN

NORTHLAND GLASS INDUSTRIES
PLYMOUTH, MINNESOTA

NU-TECH GLASS INDUSTRIES LTD.
NIAGARA FALLS, ONTARIO, CANADA

THREE RIVERS ALUMINUM COMPANY, INC.
ZELIENOPLE, PENNSYLVANIA

VEGA GLASS CENTERS, INC.
ALEXANDRIA, VIRGINIA

VIRACON, INC.
BENSENVILLE, ILLINOIS

WEATHERSHIELD MFG., INC.
LOGAN, UTAH

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 BOARD OF GOVERNORS

REPRESENTING PUBLIC INTEREST

Mr. Richard C. Elstner, S.E.
Wiss, Janney, Elstner and Associates
P.O. Box 10130
Honolulu, Hawaii 96816
Telephone 808-732-3633

Mrs. Sylvia Lav
71 Southgate Circle
Massapequa Park, New York 11762
Telephone 516-798-6323

Dr. Joseph E. Minor, P.E.
Institute for Disaster Research
Texas Tech University
P.O. Box 4089
Lubbock, Texas 79409
Telephone 806-742-3523

Dr. Orville L. Pierson
2120 Village of Pennbrook
Lovettown, Pennsylvania 19054
Telephone 215-547-2937

Mr. E. F. Scheuerell
601 E. Conrad Drive
P.O. Box 306
Medford, Wisconsin 54451
Telephone 715-748-4977

Dr. Donald R. Uhmann
Massachusetts Institute of Technology
Building 13-4005
Cambridge, Massachusetts 02139
Telephone 617-253-6898

REPRESENTING INDUSTRY

Mr. Colin S. Brady
Twin Pane
31251 Industrial Road
Livonia, Michigan 48150
Telephone 313-522-8400

Alfred G. Sanford
General Electric Silicone Products Div.
Waterford, New York 12180
Telephone 518-237-3390

Mr. Robert G. Spindler
PPG Industries, Inc.
1 Gateway Center
Pittsburgh, Pennsylvania 15222
Telephone 412-434-2824

Mr. John F. Thomas
W. R. Grace and Company
P.O. Box 217
Baltimore, Maryland 21203
Telephone 301-659-9000

Mr. Paul Thompson
Havlin-Witkin Corporation
2759 Lafayette Avenue
Santa Clara, California 95050
Telephone 408-999-4401

Mr. Paul Tolz
General Glass Corporation
11205 East 37th Avenue
P.O. Box 29711
Denver, Colorado 80238
Telephone 303-371-5511

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
Mr. Colin S. Brady, President
Twin Pane; Division of
Philips Industries, Inc.
31251 Industrial Road
Livonia, Michigan 48150
Telephone 313-522-8400

Insulating Glass Certification Council
Mr. Claude F. Robb
Administrator
Route 11 - Industrial Park
Cortland, New York 13045
Telephone 607-753-6711

IGCC Certification Committee
Mr. Robert G. Spindler, Chairman
PPG Industries, Inc.
1 Gateway Center
Pittsburgh, Pennsylvania 15222
Telephone 412-434-2824

Insulating Glass Certification Council
Ms. Carole K. Skinner
Staff Assistant
Route 11 - Industrial Park
Cortland, New York 13045
Telephone 607-753-6711

August 1, 1982; IGCC 11
ROSTER

BOARD OF GOVERNORS
Representing Public Interest
Richard C. Elstner, Wiss, Janney, Elstner
Sylvia Lav, Consumer
Joseph E. Minor, Texas Tech University
Orville L. Pierson, Consumer
E.F. Scheuerell, Consumer
Donald R. Uhlmann, M.I.T.

Representing Industry
Colin S. Brady, TwinPane
Alfred G. Sanford, GE Silicone
Robert G. Spindler, PPG
John F. Thomas, W.R. Grace
Paul Thompson, Havlin-Witkin
Paul Toltz, General Glass

IGCC Officers
Colin S. Brady, President
Robert G. Spindler, Vice President
Joseph E. Minor, Secretary
Orville L. Pierson, Treasurer

IGCC CERTIFICATION COMMITTEE
Robert G. Spindler, Chairman

Licensee
Air Master Corporation
Cardinal IG
F.G.M. Insulating Glass Co., Inc.
General Glass Corporation
Havlin-Witkin Corporation
Hordis Bros., Inc.
Illinois Valley Glass & Mirror
LOF Glass
The O. M. Edwards Company, Inc.
PPG Industries, Inc.
Salem Aluminum Window Company
Solar Seal Company
Soule Glass Industries
Southern Wholesale Glass
Thermo Systems, Inc.
Twin Pane
Viracon, Inc.
Weather Shield Mfg., Inc.

Primary Member
Harold L. Kapp
Roger D. O'Shaughnessy
Charles Kaplanek
Paul Toltz
Paul Thompson
Gennaro J. Catalano
Warren R. Watkins
Donald J. Vild
John Ranz
Samuel Saloum, Jr.
George E. Logan
Frederic P. Shaw, Jr.
Preston J. Richardson
Douglas A. Long
Jerry Jenson
Colin S. Brady
Harold Landsman
David Schield

First Alternate
Robert E. Erke
John Witkin
Sam E. Baldwin
Robert G. Spindler

Second Alternate
A. William Lingnell III
Richard T. McGuire
Paul Daugherty
Donald Schwartz

Members by virtue of being a governor
Wiss, Janney, Elstner
Consumer
Texas Tech University
Consumer
Consumer
M.I.T.

Richard C. Elstner
Sylvia Lav
Joseph E. Minor
Orville L. Pierson
E.F. Scheuerell
Donald R. Uhlmann

Legal Counsel:
Jenner and Block

Administrator:
Claude F. Robb

Administrative Staff:
Carole K. Skinner

12 IGCC; August 1, 1982
PARTICIPANTS (SUPPLIERS)

Allmetal, Inc.
636 Thomas Drive
Bensenville, Illinois 60106
Mr. Richard E. Andersen
Mr. Frank M. Stubblefield

Eagle Chemical Company, Inc.
P.O. Box 8116
Cincinnati, Ohio 45208
Mrs. Mercedes Robbert

H. B. Fuller Company
5220 Main Street, N.E.
Minneapolis, Minnesota 55421
Mr. David B. Massey
Miss Laurie L. Anderson

General Electric Silicone Products Division
Waterford, New York 12188
Mr. Alfred G. Sanford
Mr. Stanley J. Bossmer

W. R. Grace and Company
P.O. Box 2117
Baltimore, Maryland 21203
Mr. John F. Thomas

Hygrade Metal Moulding Manufacturing Corporation
540 Smith Street
Farmingdale, New York 11735
Mr. Richard Coale

Insulating Glass Systems
340 Vista Park Drive
Pittsburgh, Pennsylvania 15205
Mr. Vincent P. Sadlek

Laporte Industries, Ltd.
Luton, Bedfordshire
United Kingdom LU4 8EW
Mr. Alan Jarvis

C. R. Laurence Company, Inc.
2503 East Vernon Avenue
Los Angeles, California 90058
Mr. William R. Gyore

Le Vitrage Isolant S.A.
Boite Postale 567
78005 Versailles Cedex
France
Mr. Pierre P. Chavy

Norton Company
P.O. Box 350
Akron, Ohio 44309
Mr. Charles Gustafson
Mr. Robert M. Myers
Mr. Marvin V. Newton

Products Research and Chemical Corporation
410 Jersey Avenue
Gloucester City, New Jersey 08030
Mr. DeWitt W. Markham

Thiokol Corporation
930 Lower Ferry Road
Trenton, New Jersey 08650
Mr. Thomas F. Toomey

Tremco, Inc.
10701 Shaker Boulevard
Cleveland, Ohio 44104
Mr. James A. Box
Mr. William J. Golla

Union Carbide Corporation
308 Harper Drive
Moorestown, New Jersey 08057
Mr. Gary I. Mankin

Woodmont Products, Inc.
County Line and New Roads
Huntington Valley, Pennsylvania 19006
Mr. William R. Berlinghoff

Zeocem
P.O. Box 35940
Louisville, Kentucky 40232
Mr. Alessio A. Maggi
Mr. Michael A. Miller

August 1, 1982; IGCC 13
PARTICIPANTS (NON SUPPLIERS)

Mr. Leland J. Badger
Jenner & Block
One IBM Plaza
Chicago, Illinois  60601

Mr. Donald J. Conwell
2409 Olson Drive
Kettering, Ohio  45420

Mr. Richard C. Elstner
Wiss, Janney, Elstner and Associates
1210 Auahi Street
Suite 120
Honolulu, Hawaii  96814

Mr. A. Risher Hall
134 Dorchester Drive
Vincentown, New Jersey  08088

Mrs. Sylvia Lav
71 Southgate Circle
Massapequa Park, New York  11762

Mr. Ronald D. Lowden, Jr.
314 Chestnut Avenue
Narberth, Pennsylvania  19072

Mr. Scott A. Werner
Architectural Testing, Inc.
Two Interchange Place
York, Pennsylvania  17402-9899

Dr. Joseph E. Minor, P.E.
Texas Tech University
Institute for Disaster Research
P.O. Box 4089
Lubbock, Texas  79409

Mr. Robert A. Nance
1640 West 32nd Place
Hialeah, Florida  33012

Dr. Orville L. Pierson
2120 Village of Pennbrook
Levittown, Pennsylvania  19054

Mr. Robert Schwartz
Skidmore, Owings & Merrill
103 Hooverton Place
East Windsor, New Jersey  08520

Mr. James L. Spetz
Jim Spetz Testing Laboratory
29308 Armadale Avenue
Wickliffe, Ohio  44092

Dr. Donald R. Uhlmann
Massachusetts Institute of Technology
Building 13-4005
Cambridge, Massachusetts  02139

Mr. Alonzo S. Westbrook
State of Tennessee
Division of Architectural Services
One Commerce Place; Suite 1000
Nashville, Tennessee  37219

Mr. Jerry Wulf
Andersen Corporation
Bayport, Minnesota  55003
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 IGCC number, CBA, CB or C and a date code spanning no more than a six 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 IGCC permanent label must be affixed to certified products only at the time and place of manufacture. Outdated spacers may be hand stamped to bring the label up to date.

The alpha part of the label (C, CB, or CBA) will be considered as part of the IGCC number. The permanent label must be affixed only to 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:

IGCC® 666 CBA L80
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

MEETINGS OF THE
CERTIFICATION COMMITTEE

The Certification Committee of the Insulating Glass Certification Council met on May 5 and 6, 1982.

Interested persons may obtain minutes of these 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 August 1, 1982; 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:

Mr. Claude F. Robb
Administrator
Insulating Glass Certification Council
Route II Industrial Park
Cortland, New York 13045

Telephone: 607-753-6711

* * * * * * * * * *
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 or Licensee in the IGCC Certification Program, or 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 it intends 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 is 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 E774-81 containing 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:

Mr. Claude F. Robb
Administrator
Insulating Glass Certification Council
Route II - Industrial Park
Cortland, New York 13045
Telephone: 607-753-6711

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION.
FORWARD

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 E774-81 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 visits and product evaluation, a program of product certification is developed in accordance with the accepted American National Standards as contained in American National Standards Z24.1. 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 manufacturer's assurance that his sealed insulating glass units have been produced in conformance to the ASTM specification E774-81.

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

ETL Testing Laboratories, Inc. (ETL) is the independent administrator of the certification program. ETL 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 (including notarization of the Affidavit, Appendix A) and sends these to the IGCC office. IGCC will countersign both copies and return one to the licensee.
c) The Appendix A, to the Licensee Agreement, contains a description of the model (prototype report attached) that will be authorized to use the IGCC permanent label.

d) The licensee sends to IGCC the twelve-month certification fee.

e) After receipt by IGCC of the above, the administrator validates that particular model and sends to the licensee a notice of authorization to use the IGCC permanent label. This number must be incorporated into the permanent label to be affixed on each certified sealed insulated 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 insulated glass. Sealed insulating glass must meet or exceed the applicable specification before it can be certified.

IGCC recognized independent testing laboratories conduct all tests. All laboratories, whose test reports are utilized by this certification program, shall be approved by the IGCC certification committee.

Administrator Authorizes Certification

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

Licensees label sealed insulated 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 at least 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 administrative 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, results are mailed promptly to the licensee by the administrator.

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, stating a retest fabrication is requested 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. All costs involved will be paid from the complainant's surety deposit, unless the investigation proves non-compliance, in which case all costs will be borne by the licensee found to be in non-compliance.

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 or 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, number, 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 or 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 fee will be for a period of twelve months. However, the next invoice to a licensee will have the fees prorated to the nearest whole month in such a manner that participation in the Certification Program will be on a February 1 to January 31 basis. 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 prior to the six month period during which the specimens will be fabricated and tested.

Initial certification for each item will be for a period of twelve months commencing with acceptance of the license agreement. The next invoice will be prorated to a February 1 date.

CERTIFICATION PROGRAM DOCUMENTS AND AGREEMENTS

License Agreement

This agreement, incorporating independent program administration and routine, periodic, independent plant inspections, sampling and evaluation, governs 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, additional periods of twelve months, 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 ETL Testing Laboratories, Inc., governs the relationship between IGCC and ETL, 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.

f) handles all routine clerical duties of IGCC with respect to certification matters.

g) acts as IGCC treasurer, invoicing licensees, maintaining a bank account and dispersing funds (fiscal reports are made to the IGCC 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 sealed insulating glass units of each licensee.

Certification Label

This certification mark is permanently affixed to each unit of certified sealed insulating glass by the licensee. It 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.

August 1, 1982; IGCC 21
G.2 - Breather Tube
The addition of a breather tube is acceptable even though not in the test specimen.

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.4 - Coated Glass
Inorganically coated glass may be used provided that the sealant or sealants contact glass or contact silica or a glass-like material and no other organic materials have been introduced into the system and the layers of silica and metal have a bond strength in excess of the sealant bond strength.

G.8 - Munting
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 light divided arrangement in a diagonal diamond pattern. The IGCC label cannot be used on a sealed insulating glass unit unless the tested prototype contained internal muting.

G.15 - Multiple Air Spaces
Multiple air space units may be labeled 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 - Coated Glass
A test run at an IGCC approved laboratory to the same level on units having coated glass with similar results on uncoated glass units would be an alternate for labeling for that particular coating and unit. The thickest and thinnest coating testing shall be sufficient demonstration of an alternate for labeling rather than every thickness being tested. Preparation of test specimens need not be witnessed. However, the test result must be reviewed and approved by the Administrator.

CLASS II - SPECIMEN

G.6 - Specimens - Quantity
A minimum of 12 specimens, up to a maximum of 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 an unannounced inspection will be a check, to some degree, to determine whether a licensee is using an 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 alpha part of the label (C, CB, or CBA) will be considered as part of the IGCC number.
CLASS IV - EQUIVALENCY

G.5 - Grey Area

Situations that are not included in the Always or Never categories listed above, fall into the grey area. The grey area situation is covered by minutes item 10.10.77.18 and is repeated here.

When there is a change and the licensee desires to use the same IGCC number, the licensee shall:

1) immediately notify the administrator with all details of the change.
2) 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 or
3) demonstrate the equivalency of the change to the satisfaction of the certification committee. (Specimens not required.)

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.

Testing done in house by a licensee must be done under the surveillance of the administrator.

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 within sixty days a test be initiated. The model must pass the same level of test as the original model and shall be treated as a routine retest except appeals, reviews and reconsiderations will not be available.

G.23

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

CLASS V - APPEALS, REVIEWS AND DE-CERTIFICATION

G.13 - Monetary

The administrator shall remove authorization to use the IGCC permanent label from all of any licensees products for failure to pay monies due to IGCC within 30 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 by 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 fail, they shall be considered as the next routine test.

e) If the retest units comply, 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.
C.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 unauthorized construction for the third time.

C.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 Quick 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 Quick Action Subcommittee favorable to the Licensee shall be a final decision. A decision by the Quick 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 Quick 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.
IGCC® APPROVED LABORATORIES PRESENTLY CONDUCTING TESTS
IN ACCORDANCE WITH ASTM E773-81 & E774-81

LABORATORIES

Architectural Testing, Inc.
Two Interchange Place
York, Pennsylvania 17492 - 9899
Attention: Mr. Scott A. Warner
Telephone 717-846-7700

Bowser-Morner Testing Laboratories
420 Davis Avenue
Dayton, Ohio 45401
Attention: Mr. Robert J. Rosencrans
Telephone 513-253-8805

National Certified Testing Laboratories, Inc.
One Interstate Plaza
York, Pennsylvania 17402
Attention: Mr. Dale E. Hein, P.E.
Telephone 717-846-1200

Jim Spetz Testing Laboratory
29308 Armadaile Avenue
Wickliffe, Ohio 44092
Attention: Mr. James L. Spetz, P.E.
Telephone 216-944-3665

It should be noted that the name of ETL Testing Laboratories, Inc. has been removed from this list only because ETL is now the Administrative Manager of the IGCC program and this program does not permit the Administrator to be a participating testing laboratory.

IGCC® LABORATORIES APPROVED FOR TESTING ONLY "PROTOTYPE" UNITS.

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

August 1, 1982; IGCC 27
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 as 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 1 - 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 participant will be $250.00 per company.

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

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION