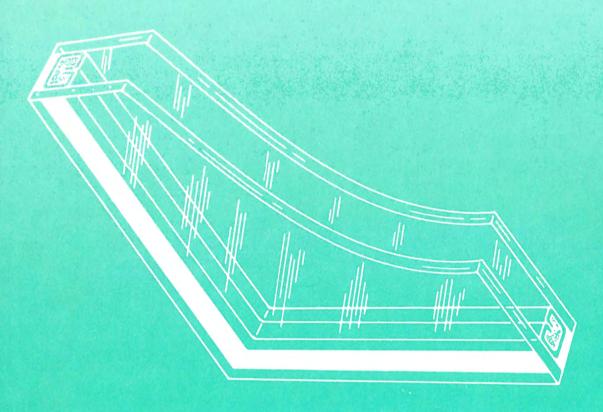
CERTIFIED PRODUCTS DIRECTORY

SEALED INSULATING GLASS MARCH 1, 1996



INSULATING GLASS

IGCC

CERTIFICATION COUNCIL

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION

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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 E774-88 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 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 percent 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 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 E774-88. 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.

CERTIFIED PRODUCTS

| | Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|-----|--|--|--------------------------|----------------------------|--------------------|-----------------------|----------------------|------------------------------------|
| | IGCC DIRECTORIES | | | | | | | |
| | ACI Distribution 12900 Nicholson Rd PO Box 815547 Dallas TX 75381-5547 214-484-3691 ACI 140 IGCC® CBA '95 | IGCC-703 IGCC-1106 IGCC-1239 | CBA CBA CBA | NYK NYK NYK | U U U | AA AA GS | MS MS MS | PIB/S PIB/HMB PU |
| | ACI Distribution 3225 S 116th Ste 133 Seattle WA 98168 206-244-0727 ACI 197 IGCC® CBA 95 | IGCC-1170 IGCC-1171 IGCC-1172 IGCC-1173 | CBA CBA CBA CBA | PLK PLK PLK NONE | SCF U U U | GS AA AA SFS | MS MS MS | PU PU PU/PIB PU |
| | Acorn Window Systems Inc 42 Cole St Guincy MI 49082 517-639-8731 AWS IGCC [®] CBA '95 | IGCC-1145 | CBA | NYK | U | AA | MS | MPS |
| 700 | AFGD, Division of AFG Ind. Ltd. 75 Doney Crescent Concord, Ontario L4K 1P6 CANADA 905-669-1930 AFG TOR SEALITE IGCC® CBA '95 | IGCC-679 IGCC-1207 IGCC-1208 IGCC-1209 | CBA CBA CBA CBA | BC/ALJ/L BC BC BC | U/C U U U | MA MA AA AA | MS MS MS MS | PIB/S PIB/PS PIB/PS PIB/S |
| | Advanced Glass Systems Inc. 2175 Kumry Rd PO Box 70 Trumbauersville PA 18970 215-536-0333 AGP IGCC [®] CBA '95 | IGCC-1040 1287 | | BC/NK | U | BSS | - | BSS/S |
| , | Alside Window Co-Midwest 3820 44th Ave S W Cedar Rapids IA 52401 319-390-4237 AWCMW IGCC® CBA '95 | IGCC-1133 | CBA | BC/NK | U | TPS | DM | нмв |
| ý. | Alside Window Co S E 3800 Farmgate Rd Kinston NC 28501 919-527-5050 AWCSE IGCC® CBA '95 | IGCC-1148 | | NYK | U | TPS | DM | нмв |
| | 1.001 | 80 C | 34 | | | | | |

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CERTIFIED PRODUCTS

| Licensee | IGCC Number | c | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|------------------------|--------|------------------------|------------|--------|------------|----------------|
| American Flat Glass Dist | | | | | | | |
| 1201 Hwy 67 E Alvarado TX 76009 817-477-1144 | IGCC-1025 | CBA | NYK | u | AA | MS | PIB/MPS |
| AFGD 24 IGCC® CBA '95 | | | | | | | |
| American Flat Glass Dist | | / | | | | | |
| 3350 Ball St Birmingham AL 35234 205-841-6785 | IGCC-1212 | CBA | NYK. | U (33) | AA | MS | _P5 |
| AFGD O3 IGCC® CBA '95 | | | Q | 1231 | | | mps |
| American Flat Glass Dist | | | | | | | |
| 4905 Lima St Denver CO 80239 303-371-1151 | IGCC-1259 | CBA | NYK | u | AA | MS | PIB/PS |
| AFGD 21 IGCC® CBA '95 | | | 6 | | | | |
| American Flat Glass Dist | | | | | | | |
| 575 Currant Rd Fall River MA 02720 | IGCC-1156 | CBA | NYK | U | AA | MS | PIB/S |
| 508-675-9220 | 1770 | 1 | out toll | PINE CLUST | Fran V | ColoTine 6 | 1 |
| AFGD 7 IGCC® CBA '95 | KNEIC | | (>1339 | mos | | 1303 100 | |
| American Flat Glass Distribut | one | | 7/340 | MPS | | | |
| -148 Flint Hill Rd | IGCC-1215 | CBA | NYK | U | AA | MS | PIB/PS |
| 704-392-7431 | IGCC - 1211 | CBA | NYK | U | AA | MS | PS |
| AFGD 94-1 IGCC® CBA '95 | | | | | | 7777 | rs |
| American Flat Glass Dist 4520 Willow Pkwy | W/S | 1 | K. | | | | w/5 |
| Cuyahoga Heights OH 44125 | IGCC-1225 | CBA- | NYK NYK | 9 | AA | MS | PS |
| 216-341-2110 | IGCC-1203 | CBA | NYK | U | AA | MS MS | PIB/PS PS/S |
| AFGD 2 IGCC® CBA '95 | 1350 | | | | | ,,,,, | 23/3 |
| American Flat Glass Dist 9288 Sutton Pl | | ETG S. | | | | | |
| Hamilton OH 45011 | IGCC-854 | CBA | NYK | Ü | AA | MS | PS |
| 513-874-5772 | IGCC-1155 IGCC-1241 | CBA | NYK | u | AA | MS MS | PIB/PS |
| AFGD O6 IGCC® CBA '95 | 1,000,01001 | 24.0 | 17.17 | o, | M.M. | MS | PIB/S |
| American Flat Glass Dist | | | | | | | |
| 3200 Austell Rd Marietta GA 30060 | IGCC-808 | CBA | NYK | u | AA | MS | PIB/S |
| 404-434-2041 | - IGCC -1213 | CBA | NYK NYK | u | AA | MS | AMPIB/PS |
| AFGD 1 IGCC CBA '95 | 2 1000 | CBA | MIC | u | AA | MS | MPIB/PS |
| | | | | | | | /W |

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| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|------------------------------------|-------------------|--------------------------|-----------|---------------------------------------|----------------------------|--------------------------------|
| American Flat Glass Dist 6600 Suemac Pl Jacksonville FL 32254-2792 904-786-6611 AFGD 02 IGCC® CBA '95 | IGCC-1274 | СВА | NYK | ü | AA | MS | PS/M/PS |
| American Flat Glass Dist 2341 Beaver Creek Dr Powell TN 37849 615-938-2020 AFGD 05 IGCC® CBA '95 | 1GCC-1216 | CBA | NYK | Ú | AA | MS | MAS |
| American Flat Glass Dist 6200 Gorman Rd Richmond VA 23231 804-222-0120 AFGD 10 IGCC® CBA '95 | IGCC-957 IGCC-1085 IGCC-1222 | CBA CBA CBA | NAK NAK NAK NAK | טטט | A A A A A A A A A A A A A A A A A A A | MS MS MS/SG MS/SG | MPS PIB/MPS PS PIB/PS |
| American Flat Glass Dist 803 Prestige Pkwy Scotia NY 12302 518-374-3812 AFGD 09 IGCC® CBA '95 | IGCC-1442 IGCC-1228 | CBA CBA | NYK | Ü | AA | MS MS/SG | PS MPS |
| Assurance Glass Co Selfield Ind Pk PO Box 1452 Selma AL 36702 334-875-1900 AG IGCC® CBA '95 | IGCC-420 IGCC-1248 | CBA CBA | NYK | Ü | MA MA | MS/SG MS | PIB/PS PIB/S |
| B & G Glass & Mirror Co Inc 11866 Hubbard Livonia MI 48150 313-522-0300 B&G IGCC® CBA '95 | IGCC-466 IGCC-467 | CBA CBA | NAK | Ü | AA | MS MS | PIB/MPS PIB/S |
| J E Berkowitz Inc Route 47 Westville NJ 08093 609-456-7800 JEB IGCC® CBA '95 | IGCC-352 IGCC-1052 IGCC-1138 | CBA CBA | NYK NYK BC/WL | U U | A A A A | MS MS MS | PIB/MPS PIB/S PIB/S |
| | IGCC-1139 IGCC-1140 | CBA CBA | BC/WL NYK | u | AA | MS MS | PIB/PS PIB/PS |

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| Licensee | Number | | Construction | Substrate | Spacer | Desiccant | Sealant |
| Capitol Aluminum & Glass Corp 1276 W Main St Bellevue OH 44811 419-483-7050 CAG-HM IGCC CBA '95 | IGCC-884 | CBA | NYK | SCF | GS | MS | PU |
| Capitol Glass & Aluminum Corp 3515 S 300 W Salt Lake City UT 84115 B01-268-2521 CGAC IGCC CBA '95 | IGCC-1132 | СВА | BC/PLK | ü | ΔА | MS/SG | PIB/MPS |
| Cardinal IG Iowa 25 N PO Box 99 Greenfield IA 50849 515-343-7113 CARDINAL 2 IGCC® CBA '95 | IGCC-311 IGCC-1030 | CBA CBA | BC/ALK/S/ BC/PLK | AP U/C | MA SS/AP | MS MS/SG | PIB/S PIB/S |
| CIG 2 IGCC CBA '95 | | | | | | | |
| Cardinal IG 7115 W Lake St Minneapolis MN 55426 612-929-0317 CARDINAL 1 IGCC® CBA '95 | IGCC-1033 IGCC-1157 | CBA CBA 7/92 | BC/PLK PLK/AP | u u | SS/AP MA | MS | PIB/S PIB/S |
| CIG 1 IGCC CBA /95 | | 6 | 494 | | | | |
| Cardinal IG | | 011 | | | | | |
| 1011 E Madison St Spring Green WI 53588 608-588-7415 CARDINAL 3 IGCC® CBA '95 | IGCC-1036 | CBA | BC/ALK/S/ BC/PLK | AP U/C U | MA SS/AP | MS/SG | PIB/S PIB/S |
| or CIG 3 IGCC CBA '95 | | | * | | | | |
| Cardinal IG 1620 Town Line Rd Tomah WI 54660 608-372-3300 CARDINAL 4 IGCC CBA '95 | IGCC-756 IGCC-1039 | CBA CBA | BC/ALK/S/ BC/PLK | /AP U | MA SS/AP | MS MS | PIB/S PIB/S |
| CIG 4 IGCC® CBA '95 | | | | | | | |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|------------------------|-------------------|------------------------|-------------|----------------------|----------------|---------------------------|
| Classic Glass of Battle Creek 21472 M-37 Battle Creek MI 4901/ 616-968-2711 CLASSIC GLASS IGCC® CBA '95 | IGCC-1004 IGCC-1010 | CBA CBA CBA | NYK NYK NYK | U U U | AA/AP AA/AP AA | MS MS MS | PIB/PS PIB/S PIB/PS |
| Croft Metals Inc Hwy 71 PO Drawer 90 Lumber Bridge NC 28357 910-843-3391 CMI 92-2 IGCC [®] CBA 95 | 1GCC - 1069 | СВА | BC/NK | U | BSS | - | BSS |
| Croft Metals Inc PO Box 826 McComb, MS 39648 601-783-3188 CMI 92-1 IGCC [®] CBA '95 | 1600-1131 1227 | СВА | BC/NK | U | BSS | - | ss |
| Curved Glass Distributors 72 Chappel St Derby CT 06418 203-735-4665 CGD IGCC® CBA '95 | IGCC-1063 | СВА | NYK | U | AA | MS | PIB/PU |
| Custom Glass Products Inc 5906 Mesker St PO Box 590 Schofield WI 54476 715-359-2252 CGP IGCC [®] CBA '95 | 1GCC-745 | CBA | BC/NYK/AP | Ü, | AA | мѕ | PIB/PU |
| Custom Glass Prod of Carolina 1 1475 Harrison Rd PO Box 2049 Salisbury NC 28144 704-633-4946 CGPC IGCC® CBA '95 | | СВА | BC/NYK | U | AA | MS | PIB/PU |
| DeLuxe Insulated Glass Inc. 4375 N Sellers St Indianapolis IN 46226 317-547-3564 IGOI IGCC® CBA 95 | IGCC1016 (| СВА | NYK | U | AA | мs | PIB/PS |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|----------------------|------------|------------------------|-----------|-------------------|-----------|-----------------|
| Dykstra Brothers Glass Co 4257 30th St Burnips MI 49314 616-896-8341 DYK IGCC [®] CBA '95 | IGCC-729 IGCC-732 | CBA CBA | NYK NYK | U U | A A A A | MS MS | PIB/PS PIB/S |
| Edge Seal Technologies 45 Karago Ave. Boardman, OH 44512 216-726-2880 | IGCC-1200 | CBA | - | U | TPS | DM | нмв |
| Edge Seal Technologies Inc PO Box 75673 Cleveland, OH 44101-4755 216-439-0980 EST IGCC® CBA '95 | IGCC-1086 | СВА | BC/NK | U | TPS/AP | DM | нмв |
| Floral Glass Ind Inc 224 Sandbank Rd PD Box 882 Cheshire CT O6410 203-272-2211 INSULA 2 IGCC CBA '95 | IGCC-801 | СВА | NYK/AP | U | MA/AP | MS | PIB/S |
| Floral Glass & Mirror Inc 895 Motor Pkwy Hauppauge NY 11787 516-234-2200 INSULA 1 IGCC © CBA '95 | IGCC-881 | CBA | BC/NK/W | U | МА | MS | PIB/S |
| Four Seasons Solar Products Corp 5005 Veterans Memorial Hwy Holbrook NY 11741 516-563-4000 FSSP IGCC CBA '95 | o IGCC-968 | СВА | NYK | SCF | GS | MS | PU |
| Galaxy Mfg Co of CNY Inc 109 Monarch Dr Liverpool NY 13088 315-451-5353 GALAXY IGCC CBA '95 | IGCC-691 | СВА | NYK | u/c | ΑΔ | MS | PU |
| or COMFORT WINDOW IGCC® CBA '95 | | | | | | | |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|------------------------------------|-------------------|------------------------|---------------|---------------------------|----------------|---------------------------|
| Gentek Building Products 4545 Carolina Avenue Bldg.F Richmond VA 23222 804-321-1793 GBP IGCC [®] CBA '95 | IGCC-1175 | | ВС | u/c | BSS | - | BSS |
| 6 20/10/ | | | 2 <u>3</u> | | | | |
| Glass Dist of America Inc 2310 Sweetwater Industrial Blvd Lithia Springs GA 30057-2882 404-732-2000 GDA IGCC [®] CBA '95 | IGCC-1143 | CBA | NYK | u | AA | MS | MPS |
| Graham | 350 | | | | | | |
| Guardian Fabrication Inc 1412 S First St Rogers AR 72756 501-636-0888 GRD-028 IGCC [®] CBA '95 | IGCC-1108 IGCC-1109 | CBA CBA | NYK NYK | U U | A A A A | MS MS | MPS PIB/MPS |
| Guardian Inds Corp Lewistown Pla One Belle Ave Lewistown PA 17044 717-242-2571 GRD-065 IGCC [®] CBA '95 | ant IGCC-566 IGCC-613 | CBA CBA | NYK NYK | U | A A A A | MS MS | PIB/MPS PIB/S |
| Harvey Inds Inc 725 Huse Rd Manchester NH 03103 603-622-4232 H IGCC [®] CBA '95 | IGCC-937 | CBA | NYK | U | ΑА | MS | НМВ |
| Hoffer's Inc 5103 Janice Ave Schofield WI 54476 715-359-2432 H. I. IGCC [®] CBA '95 | IGCC-899 IGCC-1178 IGCC-1244 | | NYK BC NYK - | u u/c u | MA/AP TPS MA SFS | MS DM S | PIB/PU PIB/PU PIB/S |
| HGP Industries Inc 5334 Barthel Dr PO Box 130 Albertville MN 55301 612-497-3212 HGP 22 IGCC [®] CBA '95 | IGCC-317 IGCC-360 IGCC-621 | CBA CBA CBA | ALK/S ALK/S NYK | u u/c u | MA MA MA | MS MS MS | PIB/PU PIB/S PIB/PU |

| L i censee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|-------------------------------------|-------------------|------------------------|-----------|------------|----------------|------------------------|
| HGP Industries Inc 1331 W Sam Houston Pkwy N Houston TX 77043 713-464-5611 HGP 65 IGCC [®] CBA '95 | IGCC-1136 IGCC-1137 | | NYK NYK | U | A A A A | MS MS | PIB/HMB PIB/S |
| HGP Industries Inc 2300 S 4th St PO Box 458 Louisville KY 40201 502-637-2022 HGP 64 IGCC CBA '95 | IGCC-1083 IGCC-1240 | CBA CBA | NYK NYK | U U | A A A A | MS MS | PIB/HMB PIB/S |
| HGP Industries Inc 1500 Glen Ave Moorestown NJ 08057 609-234-9222 HGP 12 IGCC © CBA '95 | IGCC-494 | CBA | NYK | u | АА | MS | PIB/S |
| HGP Industries Inc 3404 W Papago St Phoenix AZ 85009 602-253-6980 HGP 63 IGCC © CBA '95 | IGCC-1102 | CBA | NYK/MB | U | ΑА | MS | PIB/HMB |
| HGP Industries Inc 1900 Midland St PO Box 11339 Rock Hill SC 29731 803-366-5167 HGP 44 IGCC CBA '95 | IGCC-1105 IGCC-1167 IGCC-1219 | CBA CBA CBA | NYK NYK BC/NK | U U | A A A A | MS MS MS | PIB/MPS PIB/S PU |
| HGP Industries Inc 10000 N Harrison Shawnee, OK 74801-9503 800-654-2710 HGP 61 IGCC CBA '95 | IGCC-1165 | CBA | NYK | u | ΑА | MS | PIB/HMB |
| HGP Industries Inc 1548 Stone Ridge Dr Stone Mountain GA 30083 404-939-6900 HGP 42 IGCC [®] CBA '95 | IGCC-914 IGCC-1077 | CBA CBA | NYK NYK | U U | A A A A | MS MS | PIB/S PIB/HMB |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|---|--------------------------|---------------------------------|-------------------|--|----------------------|--------------------------------------|
| HGP Industries Inc 5115 East Hantford Street Tampa, FL 33619 609 234 9222 813 247 3184 HGP 43 IGCC® CBA '95 | IGCC-1166 | СВА | NYK | ů | AA | MS | PIB/PU |
| HGP Industries Inc PO Box 368 Warrenton MO 63383 314-456-3452 HGP 21 IGCC [®] CBA '95 | IGCC-829 IGCC-1245 | CBA CBA | ALK/S BC | u | MA MA | MS MS | PIB/S PIB/HMB |
| Hurd Millwork Co 1815 Water St Merrill WI 54452 715-536-5581 | IGCC-1013 IGCC-1014 IGCC-1097 | CBA CBA CBA | BC/NYK/AP NYK BC/NYK | 2/SCF U SCF | GS/PF/P AA GS | MS MS MS | PU MPS PU |
| HURD IGCC® CBA '95 | 1GCC-1255 IGCC-1256 1GCC-1257 IGCC-1258 IGCC-1264 | CBA CBA CBA CBA | NYK N/A N/A N/A N/A | U U U U | GS GS/TPS GS/TPS GS/TPS GS/TPS | MS DM DM DM | PIB/PU PIB/PS PIB/PS PIB/PS |
| Insulating Glass of Georgia Inc 7160 Delta Circle Austell, GA 30001 404-819-3054 Inde-Pane ATL IGCC® CBA '95 | IGCC-1003 IGCC-1123 | CBA CBA | NYK NYK | ŭ | MA MA | MS MS | PIB/S PIB/PS |
| Insulpane of Connecticut Inc 30 Edmond St Hamden CT 06517 203-865-8212 | IGCC-770 | СВА | NYK | u | AA | MS | PIB/PU |
| INSULPANE OF CT IGCC® CBA '95 | | | | | | | |
| Jersey Tempered Glass Inc 2035 Briggs Rd PO Box 205 Mt Laurel NJ 08054 609-273-8700 JTG IGCC [®] CBA '95 | IGCC-689 IGCC-750 | CBA CBA | NYK NYK | ü | AA | MS MS | PU PIB/PU |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|--|--------------------------|--|-----------|-----------------------|---|--|
| Laminated Glass Corp 375 E Church Ave PO Box 1003 Telford PA 18969-1003 215-721-0400 LGC IGCC CBA /95 | IGCC-857 | CBA | NYK | ŭ | АА | MS | PIB/S |
| Louisville Plate Glass 1401 W. Broadway Louisville, KY 40201 502-584-6145 LPG IGCC [®] CBA '95 | IGCC-1281 IGCC-1280 | CBA | NYK | ü | A A A A A | MS MS | PIB/S PIB/PS |
| Marvin Windows PD Box 100 Warroad MN 56763 218-386-1430 MARVIN 01 IGCC® CBA '95 | IGCC-303 IGCC-496 IGCC-1135 | CBA CBA CBA | NYK NYK BC/NK | U U | AA AA/AP TPS/AP | MS MS DM | PU PIB/PU PIB/PU |
| MGL Glass Div/Milco Milco Apogee Wausau Group 7555 Stewart Ave P0 Box 1366 Wausau WI 54402 715-843-4823 MGL IGCC CBA '95 | IGCC-1773 IGCC-1044 IGCC-1045 IGCC-1251 IGCC-1252 IGCC-1253 | CBA CBA CBA CBA | ALK/S BC/NYK BC/ALK/S BC/S NYK BC/S | ככ ככנ | MA MA MA MA | MS/SG MS/SG MS/SG MS/SG MS/SG | PIB/S PU PIB/PU PIB/S PU PIB/PU |
| Nashville Tempered Glass Corp 1860 Air Lane Dr Nashville TN 37210 615-889-6350 NTGC IGCC® CBA '95 | IGCC-995 IGCC-1117 IGCC-1184 | CBA CBA | BC/NK/WL NYK PLK | בככ | MA A A MA | MS MS | PIB/PU PIB/PU PIB/PU |

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|---|------------------------|-----------------|-----------------|----------------|-------------------------------------|
| Norco Windows Inc PO Box 140 Hawkins WI 54530 715-585-6311 NORCO IGCC [®] CBA '95 | IGCC-1098 CB | | u | AA | MS/SG MS/SG | PIB/PU PU |
| Morth American 5 | (38, 75s | 1290 | | | | |
| Northern Building Products Inc One Remsen Pl Ridgefield NJ 07657 201-943-6400 NBP IGCC® CBA '95 | IGCC-1051 CB | A BC/NK | u — | BSS | 4 | BSS |
| | | | | | | |
| Northwest Glass Inc 127 Regal St PO Box 21258 Billings MT 59104 406-252-7196 NWG IGCC CBA '95 | IGCC-865 CB | | ų | AA | MS/SG | PU |
| | | | | | | |
| Northwestern Inds Inc 2501 W Commodore Way Seattle WA 98199 206-285-3140 NWI IGCC CBA '95 | IGCC-940 CE IGCC-941 CE IGCC-1164 CE 1644 -1274 CE | A BC/NYK | u/c u/c u | MA MA TPS | MS MS DM | PIB/PS PIB/S PIB/PS PIB/PS |
| | | | | | | |
| Oregon Glass 10450 S W Ridder Rd PO Box 649 Wilsonville OR 97070 503-682-3846 OG IGCC® CBA '95 | IGCC-1122 CE | | u | AA | MS/SG | PIB/PS |
| | | | | | | |
| Patio Enclosures Inc 720 E Highland Rd Macedonia OH 44056 216-468-0700 PEI IGCC [®] CBA '95 | IGCC-800 C | 3A NYK | U | AA/AP | MS | PIB/PU |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|------------------------|------------|------------------------|-----------|-----------|----------------|------------------|
| Perilstein Distributing Corp 100 Business Ctr Dr Cheswick PA 15024 412-274-9050 PERMA-PANE IGCC® CBA '95 | IGCC-765 IGCC-927 | CBA | NYK NYK | Ü | AA AA | MS/SG MS/SG | PIB/MPS PIB/S |
| Philips Products 9141 Arrow Hwy Cucamonga CA 91730 909-987-4694 PP-03 IGCC® CBA '95 | IGCC-1053 | CBA | PLK/MB | Ü | АА | MS/SG | НМВ |
| Philips Products 1620 Wilco Rd Stayton OR 97383 503-769-6321 PP28 IGCC CBA '95 | IGCC-1054 IGCC-1242 | CBA CBA | NYK/MB | ů | MA TPS | MS/SG | НМВ |
| Pioneer Windows Fab c/o Kasson & Keller P O Box 70 - 125-C Balzano Dr. Johnstown, NY 12095 518-725-9555 PIONEER IGCC® CBA '95 | IGCC-1128 | | NYK | Ü | AA | MŞ | HMB/MPS |
| Pride Insulated Glass Co Inc 75 N Brandon Dr Glendale Heights IL 60139 708-351-1441 PRIDE IGCC® CBA '95 | IGCC-1048 | CBA | NYK | u | ΔА | MS | PIB/MPS |
| Poma Glass & Specialty Windows,I 160 Trurnibull Ave. Girard, OH 44420 216-545-0270 PG IGCC CBA '95 | nc IGCC-1269 | СВА | | U | TPS | DM | НМВ |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|------------------------------------|------------|------------------------|-----------|----------------|----------------|-----------------------------|
| REPCO 510 Station Ave Bensalem PA 19020 215-639-5990 REPCO IGCC [®] CBA '95 | IGCC-833 | CBA | NYK | u | AA | мѕ | MPS |
| Rochester Insulated Glass Inc Merrick St Ext Manchester NY 14504 716-289-3611 RIG IGCC [®] CBA '95 | IGCC-451 | CBA | BC/NYK | u | AA | MS | PIB/S |
| SIGCO Inc 299 Presumpscott St Portland ME 04103 207-775-2676 SIGCO IGCC® CBA '95 | IGCC-654 IGCC-1232 | CBA | NAK | n | A A A A | MS MS | PS PS/PIB |
| S N E Enterprises 1000 S View Dr PO Box 700 Mosinee WI 54455-0700 715-693-7000 SNE M IGCC® CBA '95 | IGCC-553 | CBA | BC/NYK/AF | a u | AA | MS | PIB/PU |
| S N E Enterprises Inc 2116 Wood St Stevens Point WI 54481 715-344-4034 SNE P IGCC CBA '95 | IGCC-1001 | CBA | BC/NYK/A | e u | AA | MS | PIB/PU |
| Solar Seal Co 55 Bristol Dr South Easton MA 02375 508-238-0112 SOLAR SEAL IGCC® CBA '95 | IGCC-1079 IGCC-1201 IGCC-748 | CBA CBA | NYK SYNK | u u | AA MA AA | MS MS MS | PIB/S PIB/MPS PIB/MPS |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|------------------------------------|-------------------|----------------------------|-------------|--------------------------|----------------|----------------------------|
| Superseal Mfg Inc 125 Helen St S Plainfield NJ 07080 908-561-5910 SS IGCC CB '95 | IGCC-920 | СВ | NYK | U | ΔА | MS | нмв |
| Syracuse Glass Co Inc 4019 New Court Ave PO Box 381 Syracuse NY 13206 315-437-9971 SGC IGCC [®] CBA '95 | IGCC-823 IGCC-828 | CBA CBA | NYK NYK | u/c u/c | AA AA | MS/SG MS/SG | PIB/MPS PIB/S |
| Tempglass Group Inc 291 "M" St Willis Day Industrial Park Perrysburg OH 43551 419-666-2000 TEMPGLASS 81 IGCC® CBA '95 | IGCC-722 IGCC-1084 IGCC-1177 | CBA CBA CBA | BC/NYK/AP NYK/AP NYK | U U U | MA MA MA | MS MS MS | PIB/S PIB/PS PIB/MPS |
| Tempglass Group Inc 17851 N W Miami Inc Miami Fl 33169 305-652-3350 TEMPGLASS 82 IGCC [®] CBA '95 | IGCC-1101 | СВА | NYK | u | ΑΑ | MS | PIB/S |
| Tempglass Group Inc 1101 Fountain Pkwy Grand Prairie TX 75050 214-647-4028 TEMPGLASS 83 IGCC® CBA '95 | IGCC-862 IGCC-1154 | CBA CBA | NYK NYK | U U | A A A A | MS MS | PIB/S PIB/PS |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|---------------------------------|------------|------------------------|-----------|------------|-----------|-----------------|
| Tempglass Group Inc 48999 Kato Rd Fremont CA 94539 510-651-2292 TEMPGLASS 84 IGCC® CBA '95 | IGCC-1111 | CBA | NYK | U | AA | MS | PIB/S |
| The stan Falley | tens i p | | | | | | |
| Thermolite Inc 337 E Gibson St Scranton PA 18509 717-969-1957 THERMOLITE INC IGCC [®] CBA | I GCC-646 | CBA | PLK | U | АА | MS | НМВ |
| Thermoseal Glass Corp 400 Water St PO Box 360 Gloucester City NJ O8 609-456-3109 TSG IGCC [®] CBA '95 | IGCC-1126 8030 | CBA | DCK | U | ΔА | M\$/\$G | MPS |
| Thompson IG Corp 3196 Thompson Rd Fenton MI 48430 810-629-9558 Thompson IG Corp IGCC [®] CB | 1GCC-939 12 S A 195 | CBA | NYK | U | ΔΑ | MS | PIB/PU |
| TRACO (Three Rivers Alumin Cranberry Ind Pk 71 Progress Avenue Cranberry, PA 16066-3 412-776-7000 TRACO IGCC CBA '95 | IGCC-439 | CBA | BC/NK/W | u | MA | MS | PIB/S |
| Vega Glass Center of Virgi PO Box 59 Newington VA 22122 703-550-7982 INSULVUE IGCC [®] CBA '95 | nia Inc IGCC-868 IGCC-998 | CBA CBA | | U U | A A A A | MS MS | PIB/PU PIB/S |

| Licensee | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|--|--------------------|-------------------------|-----------|------------------------------|----------------------|----------------------------|
| Viracon Inc 800 Park Dr PO Box 248 Owatonna MN 55060 507-451-9555 VIRACON IGCC CBA '95 | IGCC-169 IGCC-980 | CBA CBA | BC/ALK/S BC/ALK | u/c u | MA/AP AA/AP | MS MS | PIB/S PIB/S |
| Weatherproof Inc 385 Watts Rd . Jackson MI 49203 517-764-1330 WEATHERPROOF IGCC CBA '95 | IGCC-580 IGCC-923 | CBA CB A | NYK NYK | U U | AA A A/ A P | MS MS | PU PIB/PU |
| Weather Shield Mfg Inc 2990 S 8th W Route 1 Box 103 Logan UT 84321 801-753-6590 WS-U 12 IGCC CBA '95 | IGCC-557 | СВА | NYK/MB | U | ΔΔ | MS | PIB/PU |
| Western Glass / General Glass C 11205 E 37th Ave PO Box 390711 Denver CO 80239 303-371-5511 DUAL-PANE IGCC CBA '95 | orp IGCC-932 IGCC-933 IGCC-1180 | CBA CBA CBA | BC/NYK BC/NYK NYK | ט | AA AA AA | MS/SG MS/SG MS | PIB/S PIB/HMB PIB/PS |
| Winchester Industries Route 286 E Box 160 Saltsburg PA 15681 412-639-3551 WI IGCC® CBA '95 | IGCC-928 | CBA | BC/NK | U | BSS | - | BSS |

IGCC 21

FEBRUARY 1, 1996

| Licensee | | IGCC Number | | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|-----|----------------|-----|------------------------|-----------|--------|-----------|---------|
| Winsor Window Company 2210 Stafford St., Ext. Monroe, NC 28110 704-283-7459 | 496 | IGCC-1265 | CBA | NYK | U | A | MS | нмв |

CERTIFIED PRODUCTS KEY

```
Sealant:
                                            Desiccant:
 BSS
         = Butyl sealant spacer
                                           MS
                                                     = Molecular sieve
 HMB
         = Hot melt butyl
                                           SG
                                                     = Silica gel
 MPS
         = Modified Polysulfide
                                           MS/SG
                                                   = Blend of molecular sieve
         = Polyisobutylene
 PIB
                                                        and silica gel
 PS
         = Polysulfide
                                           DM
                                                     = Desiccated matrix
 Pυ
         = Polyurethane
S
         = Silicone
Corner:
                                           Spacer Material:
ALK
         = Aluminum key
                                           ΑΔ
                                                     = Anodized aluminum
DCK
         = Die cast key
                                                     = Aluminum channel
                                           AC
NYK
        ≕ Nylon key
                                           ΑP
                                                    = Aperture plug
Pl.K
        = Plastic key
                                           BSS
                                                    = Butyl Sealant Spacer
NK
         = No key
                                           MA
                                                    = Mill finish aluminum
ВC
        = Bent Corners
                                           SFS
                                                    = Silicone foam system
AΡ
        = Aperture plug
                                           GS
                                                    = Galvanized steel
MB
        = Muntin bars
                                           SS
                                                    = Stainless steel
                                                    = Tinplate steel
                                           TPS
s
        = Soldered
W
        = Welded
R
        = Brazed
                                           Thermal Break:
J
        = Joiner
        = Leg
                                                    = Desiccated plastic
                                           PΕ
                                                     = Plastic foam
                                           Ρ
                                                    = Plastic
Substrate:
         = Uncoated
U/C
         = Uncoated/Coated
                                           Vapor Barrier:
SF
        = Suspended film
SCF
         = Suspended coated film
                                          ΔF
                                                    = Aluminum foil
                                                    = Buty1
                                          В
                                          Ρ
                                                    = Plastic
```

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*

"PROTOTYPE IN PROGRESS"

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

MANUFACTURERS

TRUMBAUERSVILLE, PA ADVANCED GLASS SYSTEMS FALL RIVER, MA AMERICAN FLAT GLASS DIST ATLANTA, GA ARCH AMERLITE ORLANDO, FL ARCH TEMPERED GLASS GREENFIELD, IA CARDINAL IG MINNEAPOLIS, MN CARDINAL IG SPRING GREEN, WI CARDINAL IG TOMAH, WI CARDINAL IG ALBUQUERQUE, NM CAPITOL GLASS INC LUMBER BRIDGE, NC CROFT METALS, INC. BEDFORD, OH EDGE SEAL TECHNOLOGIES INC MERRILL, WI HURD MILLWORK DAVENPORT, IA MID-AMERICAN GLASS HAWKINS, WI NORCO WINDOW

"PROTOTYPE IN PROGRESS"

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

MANUFACTURERS

NORTH AMERICAN GLASS

NORTH AMERICAN GLASS

NORTHWESTERN, INDS

PHILIPS PRODUCTS

PIONEER WINDOWS

PPG INDUSTRIES

PRIDE INSULATO GLASS

SIGCO INC

SOUTHWALL WORLDWIDE

TEMPGLASS GROUP

THE WOODSTONE CO

THOMPSON IG

VERMONT GLASS

WEATHER SHIELD

WESTERN GLASS

WINDSOR WINDOW

SOUTHBEND, IN

CHICAGO, IL

SEATTLE, WA

STAYTON, OR

YN , NOT2NHOL

BURLINGTON, IA

GLENDALE HEIGHTS, IL

PORTLAND, ME

SANTA FE SPRINGS, CA

GRAND PRAIRIE, TX

WESTMINSTER, VT

FENTON, MI

NO WOLPOLE, NH

MEDFORD, WI

DENVER, CO

MONROE, NC

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.

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Clinton NC 28328
Telephone: 910-592-7101
Fax: 910-592-7266

James Krahn Marvin Windows Hwy 11 W Warroad MN 56763 Telephone: 218-386-1430 Fax: 218-386-2925

Elizabeth Bellaver Nichols-Homeshield Inc 901 N Batavia Ave Batavia IL 60510

Telephone: 708-406-5410 Fax: 708-406-5412

COMMUNICATIONS

In all matters concerning the administration and implementation of the IGCC Certification Program, correspondence may be directed to any of the following:

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IGCC Certification Committee Jim Spetz, Chairman Jim Spetz Testing Laboratory 29308 Armadale Ave Wickliffe, OH 44092 Telephone: 216-944-3665

Insulating Glass Certification Council
Jeffrey C. Phoenix
Administrative Engineer
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Cortland NY 13045-0950
Telephone: 607-753-6711

ROSTER

BOARD OF GOVERNORS

Representing Public Interest

Representing Industry

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Robert Spindler, Cardinal IG Greg Carney, Interpane Glass James Krahn, Marvin Windows Elizabeth Bellaver, Nichols

Robert Spindler, President W. Lynn Beason, VP and Treasurer Elizabeth Bellaver, Secretary

IGCC CERTIFICATION COMMITTEE

Jim Spetz, Chairman

| Licensee ACI Distribution Advanced Glass Systems Inc AFG Glass Inc Alpen Inc | Prımary <u>Member</u> | First <u>Alternate</u> | Second <u>Alternate</u> |
|---|---|---|------------------------------|
| Alside Window Co American Flat Glass Distributors Assurance Glass Co B & G Glass & Mirror Co Inc J E Berkowitz Inc Capitol Aluminum & Glass Corp | Mark B. Cody Walt Myers | Thomas J. Mewbourne Cheri Kellman | |
| Capitol Glass & Aluminum Corp Cardinal IG Class Glass of Battle Creek Inc Crystal Windows & Doors Inc Curved Glass Distributors | Doug Brown II Robert G. Spindler | Dennis Mills Roger D. O'Shaughnessy | Brad Hansen James Larsen |
| Custom Glass Products Inc Custom Glass Products of Carolina In DeLuxe Insulated Glass Inc Dykstra Brothers Glass Co Ecker Manufacturing Corp | Victor Reeder c Steven Reeder Douglas J Smith Kevin Schulz | Eric Reeder Rick Kasten | Joseph Oboikovitz |
| Edge Seal Technologies Inc Floral Glass Industries Inc Floral Glass & Mirror Four Seasons Solar Products Corp | Michael McHugh | Mike Bayer | Susan Orr |
| Galaxy Mfg Co of CNY Inc Glasmont Corp Glass Distributors of America Inc Glass Systems Inc Glasstemp Inc Glenny Glass Co | Kevin Schulz | Jim Sutterfield | |
| Guardian Fabrication Inc Guardian Inds Corp Lewistown Plant Harvey Industries Inc Hoffer's Inc HGP Industries Inc Hurd Millwork Co | John Jablonski John Jablonski Michael Kelliher Kevin Schulz Robert Williams | Mark Steffina Mark Steffina Jim Barreira Ken Lancaster Richard Wright | Kathryn Pell Kathryn Pell |
| Insulating Glass of Georgia Inc Insulpane of Connecticut Inc | Peter Nygaard Rob Brewer | James Sorge Joseph M. Scalzo | Paul Wagner · |

Jersey Tempered Glass Inc Laminated Glass Corp Louisville Plate Glass Marvin Windows MGL Glass Div/Milco Nashville Tempered Glass Corp Norca Windows Inc

Northern Bldg Products Inc Northwest Glass Inc Northwestern Inds Inc Oregon Glass

Patio Enclosures Inc. Perilstein Distributing Corp Philips Products Poma Glass Pride Insulated Glass Co Inc

REPCO Rochester Insulated Glass Inc SIGCO Inc S N E Enterprises Inc Solar Seal Co Superseal Mfg Inc

Syracuse Glass Co Inc Tempglass Group, Inc. Thermolite Inc Thermoseal Glass Corp Thompson IG Corp TRACO (Three Rivers Aluminum Co)

Vega Glass Center of Virginia Inc Viracon Inc Weatherproof Inc Weather Shield Mfg Inc Western Glass/ General Glass Corp

Winchester Industries Windsor Window

Mike Lerner

Douglas Steinbring

Tim McQuade

Bob Boger Jeff Nowell

Krish Kudva

James Krahn

Stanley Wolk

Andrew C. Soule DUA MOUDTH DOOG PALMER Frederic P. Shaw, Jr.

William Coddington

Robert P. Randall

Lyle Kronnberg

Lyn Hartl Peter Fillmore

James Levingston

Henry Heiss

Steven Freeman

Tim Kachmarik Richard Wright

Dean Mennen

Randy Runge Richard Wright Russ Huffer

Steve Wright Jim Miller

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Bostik Construction Products Boston St Middleton MA 01949 Rich Owens

Courtaulds Aerospace PO Box 1800 5430 San Fernando Rd Glendale CA 91209 Rich A. Giangiordano

Dow Corning Coproration Midland MI 48686-0994 Mark Maxwell Steve Block

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Hygrade Metal Moulding Mfg Corp 540 Smith St. Farmingdale NY 11735 Doug Sherman Lucille Kurtz

Morton International Inc. 100 N. Riverside Plaza Chicago IL 60606-1598 J. R. Marty North

Oakite Products, Inc. Chemetall GmbH/CMC Products 50 Valley Rd. Berkeley Heights, nj 07922 Christian J. Dilger

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Donald J. Vild PO Box 7514 Oregon OH 43616

Scott A. Warner Architectural Testing Inc 130 Derry Ct York PA 17402-9405

Jerry Wulf Andersen Corporation Bayport MN 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. $IGCC^{\textcircled{\textbf{B}}}$

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 the ending of each period). Outdated spacers may be hand stamped to bring the label up to date. 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 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 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:

| Company Identification | Plant Code | IGCC® | Rating Level | Year Code |
|--------------------------|------------|-------|--------------|-----------|
| AMERICAN GLAZING COMPANY | | IGCC® | СВА | 95 |

or

AMERIPANE

or

AGC

01

All 3 if desired but must be listed

Under each company's name is their IGCC permanent label.

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 E. Minor | University of Missouri | 1985 - 1989 |
| Mitchell D. Edwards | SPI Glass Corp | 1989 - 1992 |
| John Colapietro | Tempglass Inc | 1992 - 1993 |

MEETINGS OF THE

CERTIFICATION COMMITTEE

The Certification Committee of the Insulating Glass Certification Council met on November 7 and 8, 1996

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, 1995; 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. Jeffrey C. Phoenix
Administrative Engineer
3933 US Route 11
PO Box 2040
Cortland NY 13045-0950

Telephone: 607-753-6711 Fax: 607-756-9891

.



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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.
- 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 virture 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 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 E774-88 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:

Insulating Glass Certification Council Mr. Jeffrey C. Phoenix Administrative Engineer 3933 US Rt 11 PO Box 2040 Cortland NY 13045-0950

Telephone: 607-753-6711

Fax: 607-756-9891

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 E774-88 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 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 <u>license agreement</u> 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 <u>continuous adherence of the licensees</u> 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 <u>have been produced</u> in conformance to the ASTM specification E774-88

Who Can Participate?

Every manufacturer of sealed insulating glass is eligible, on a <u>voluntary basis</u>, 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 <u>administrator</u> 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 necessary 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. The permanent label must be affixed on each certified sealed insulating glass unit.
- f) The certified mode! will then be listed in the next published certified products directory.

HOW THE CERTIFICATION PROGRAM WORKS

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

<u>IGCC recognized independent testing laboratories</u> 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.

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 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, 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 <u>automatically terminated</u>. 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 complaint'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 compliant; responding to the consumer with a certified products directory and instructions on how to locate the IGCC label.

It will be the <u>consumer's responsibility</u> 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 <u>no further responsibilities or options</u>.

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 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, the administration fee for participation will be one-half the total yearly fee and will include one inspection prior to the February 1 date. If the authorization date is on or before July 31, the total administration fee for the first year will be charged for participation and will include two inspections 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.

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.

<u>Future amendments or revisions</u> 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 Feburary 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 ι_S 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.

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 inch is required in test specimens).

A.GL.a

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 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.

SPACER

A.SP.1

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

A.SP.2

Any change in spacer wall thickness from that tested.

A.SP.

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.

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 spaces equal to, or greater than, 1/4-inch provided the weight of desiccant per inch of edge remains the same or is greater than the model tested. On units fabricated having 3/16-inch air spaces, provided the manufacturer maintains the same weight of desiccant per inch of edge or as close to that value as possible.

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% by weight. (Adopted 8/29/84)

SEALANT

A.SE.

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 administrator's 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 ending when test results are received by the Administrator. (Revised 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 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.

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 DF 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 B/29/84)

SEALANT

N.SE.

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

 $\underline{\text{Breather Tube}}$ - Tube inserted into the I.G. spacer and intended to be sealed prior to glazing of the unit.

 ${\color{red} \underline{\textbf{Capillary Tube}}}$ - Tube inserted into the I.G. spacer and intended to be left permanently open.

<u>Capillary Tube and How It Related to Membrane</u> - 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.O - (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 \underline{not} be witnessed. However, the test result \underline{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.4 - Coated Glass

Inorganically coated glass (i.e. pyrolytic-coated low E) may be used provided that the sealant or sealants contact the original glass substrate or contact silica or a glass-like material. (Modified 4/16/91)

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 - Coated Glass (Coated to Edge)

A coated insulating glass unit shall be considered equivalent to certified insulating glass units made with uncoated glass, providing the test level is the same for both sets of I.G. units. Tests shall be by IGCC approved laboratories. Only the lowest light transmission product for which equivalency is desired need be tested, provided the outermost metallic layer contacting the sealant is the same composition for all visible light transmission. 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 or whether or not the application is by a vacuum deposition or sputtering process. The coated glass pane of such units may be 1/4-inch (6 mm) thickness. Preparation of test specimens need not be witnessed. However, the test result must be reviewed and approved by the Administrator. (Adopted 8/14/85)

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" 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 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 may be tested under this guideline. (Modified 3/29/89)

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 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 tabrication. 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 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:

- 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 in house by a licensee must be done under the surveilance 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:

 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 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.

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)

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 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 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 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 unauthorized 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 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 E773-88 & E774-92

LABORATORIES

Architectural Testing Inc

130 Derry Ct York PA 17402-9405 Attention: Scott A. Warner

Telephone 717-764-7700 Fax 717-764-4129

SHIP TO: Jim Spetz Testing Laboratory

29633 Lakeland Blvd

Wickliffe OH 44092 Attention: James L. Spetz, P. E.

ORTECH Corporation 2395 Speakman Drive Mississauga, Ontario Canada L5K 1B3

Attention: Allan Major

Telephone 905-822-4111 Ext. 585

Fax 905-822-4076 Architectural Testing Inc. 587 First St S W New Brighton, MN 55112

Attention: Dan Braun

Telephone 612-636-3835 612-636-3843 Fax

MAIL TO: Jim Spetz Testing Laboratory

29308 Armadale Ave

Wickliffe OH 44092

Attention: James L. Spetz, P. E.

Telephone 216-944-3665 216-944-3671

Performance Testing, Inc. 4076-148th Ave NE Redmond, WA 98052 Attention Jon DeRose

Telephone 206-883-9788 206-869-5266 Fax

<u>Prototype Testing Only</u>

Inchcape Testing Services/Warnock Hersey

8431 Murphy Dr

Middleton WI 53562 Attention: Rick Curkeet

Telephone 608-836-4400 608-831-9279

Inchcape Testing Services/Warnock Hersey

530 Garcia ave

Pittsburg CA 94565

Attention: Vijay Ruikar, P. E.

Telephone 510-432-7344 Fax 510-432-3576

SPECIFICATION USED FOR SEALED INSULATING GLASS ASTM E774-88

Specification may be obtained by writing to . . .

ASTM 1916 Race St Philadelphia PA 19103

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.



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

3933 U.S. Rt. 11 Cortland, NY 13045-0950 607-753-6711

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 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.
- To encourage and cooperate in developing standards related to performance characteristics of insulating glass products.
- 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 \$350.00 per company.

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

CREDIBILITY IN CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION.

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

| This agreement, made this | day of | , 19, by and |
|--|--------------------|------------------------|
| This agreement, made this between INSULATING GLASS CERTIFICA | TION COUNCIL, INC. | , a corporation having |
| its adminstrative office at Indust | rial Park, Route 1 | 1; Cortland, New York |
| 13045, hereinafter called "LICENS | OR" | |
| | | |
| and | | |
| having its principal office at | | |
| | | |
| hereinafter called "LICENSEE" | | |

WITHNESSETH

WHEREAS, Licensor is sponsoring a Certification Program for Insulating Glass Units, which will provide for the validation of manufacturers certification of such products by means of independent laboratory testing to the requirements of the Specification(s) and applicable Test Method(s) as outlined in Appendix "A" and ASTM Standards; and WHEREAS, The responsibilities of IGCC, the IGCC Administrator and the Independent Laboratories are limited to the tasks as 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 insulation Glass Units complying with the pertinent requirements of the

WHEREAS, the Licensor shall contract for the complete administration of the Program and the Administrator shall contract for services with 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 twice

each year; and WHEREAS, the procedural guide, to be developed in accordance with para-graph 8.4 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; 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, upon the signing of this Agreement, have the same person or authorized agent who signs this agreement on its behalf and the engineer or other individual designated by such person also sign and submit to the Licensor the Certification Affidavit attached hereto as APPENDIX A. 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 certifled 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. understood that routine expense of sampling and testing will be borne by the Licensee. The Licensor will charge each Licensee accordingly and 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 Licenson 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 certifled production. A. A. 5) Shall not affix hereafter the IGCC Certification Label, nor 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 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. A. 9) Shall refrain from using the terms inferring 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.

11) Shall abide by the decision of the Administrator as to the compilance 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.

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 APPENDIX B 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 designated 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, which such material list Licensee's products certified hereunder.

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 inconsistent with the purposes of this License Agreement.

19) Shall have the right, at it 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 requirements of each Licensee then in good standing herewith. 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 by the Licensee and the approved laboratories in connection with the operation of the Certification

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 of 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 tees as provided in paragraph 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. 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 manufacturer must be registered individually, and products therefrom tested and certified separately and apart from products manufactured in other plants or branches of any 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 surely 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 is requested or 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

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

Coreland, New York 13045-0950

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

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 participant's table 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, including attorney's fees, including attorney's fees in appealator precedition. 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' breach shall have been determined by judgement of a court of competent jurisdiction and if such judgement 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 additional 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, nor otherwise disposed of to any other company, individual, or

successor company.

| LICENSEE: | Company | | |
|--|--|-------------------------------|---------------------|
| | Street Address | | |
| | City and State | | |
| | Company Phone Number | | |
| Signed | By (Same person must have no | Title tarized signature on | Zip Appendix A.) |
| | INSULATING GLASS CERTIFICATI | | |
| | Ву | Title | Date |
| Sign and m | nail two copies to: | | |
| Insulating Industrial PO Box 204 | Glass Certification Council Park. 3933 U.S.Route 11 | | |

TOOC LICENSE AGREEMENT

APPENDIX A

INSULATING GLASS CERTIFICATION COUNCIL CERTIFICATION PROGRAM for SEALED INSULATING GLASS UNITS

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| Council Certification Program and affixed by said Licensee, will b specification as the test specime authorized testing laboratory and wi | , that all of its Insulating Glas tted for validation under the Insulating Glas to which registered Certification Labels will be produced in the same manner and to the sam ns submitted to and successfully passed by th thin the guidelines as defined in the Procedura |
| Guide. FOR LICENSEE: | |
| (Must be same sign | nature as License Agreement and notarize below) |
| (Title - Corporate Officer) | Licensee Engineer or other designee |
| | (Name) |
| | (Title) |
| | |
| Test laboratory to use Specification Class(es) to test to: | E773-88 ASTM E774-88 Class C |
| State of)) SS | Class CB |
| County of) | Class CBA |
| | . 19 . before me personally appeared |
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| | being first duly sworn, declared the facts set |

Mail original to Insulating Glass Certification Council, Industrial Park, 3933 U S Route 11, PO Box 2040, Cortland, New York 13045-0950.



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| | | RIDER |
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| RIDER TO IGCC CER INSULATING GLASS | CERTIFICATION | N COUNCIL, | INC. (L | (CENSOR) | |
|---------------------------------------|---------------|------------|---------|----------|----------|
| | | DATED | | | LICENSEL |

For adequate and valuable consideration, the receipt of which is hereby acknowledged, it is agreed by and between Licensor and Licensee:

- A. This Rider modifies and supplements the entire IGCC Program License Agreement (the "Agreement") and each provision thereof and any prior riders thereto, between Licensor and Licensee as stated below.
- B. The Agreement is revised to provide further as follows:
 - 1. "Whereas Clause No. 1" is amended and restated to provide as follows (with new provisions shown underlined):

"Whereas, Licensor is sponsoring a Certification Program for insulating glass units, providing for (1) the validation of a manufacturer's certification of such products by means of independent laboratory testing and the requirements of the Specification(s) and applicable Test Method(s) as outlined in Appendix "A" 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."

2. "Whereas Clause No. 8" is amended and restated to provide as follows (with new provisions shown underlined):

"Whereas, the Administrator shall conduct all aspects of the Program in accordance with the highest nationally recognized standards for the conduct of such a program, including HUD standards for the 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."

3. Section A(8) is amended and restated to provide as follows (with new provisions shown underlined):

"[Licensee] 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(1) or when otherwise requested by the Administrator.

4. Section B(8) is added to provide as follows:

"[Licensor] 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").

AGREED By and Between:

LICENSOR

INSULATING GLASS CERTIFICATION COUNCIL, INC.

By:

John G. Kent,
Administrative Manager
ETL Testing Laboratories, Inc.

LICENSEE

(Company Name)

By:
(Person's Name Signed)

(Corporate Title)



3933 US ROUTE 11 P.O. BOX 2040 CORTLAND, N.Y. 13045-0950 PHONE 607-753-6711 FAX 607-756-9891

IGCC DIRECTORY ORDER FORM

| PLEASE S | SEND | с | opies o | f IGCC® | Certi | fied |
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| Products | Directory | at \$2.00/ | copy = | \$ | | to: |
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CHECK MUST ACCOMPANY ORDER AND BE MADE PAYABLE TO IGCC.

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P.O. Box 2040 Cortland, NY 13045-0950

ADDRESS CORRECTION REQUESTED

POSTAGE MUST BE AFFIXED HERE

U. S. POSTAGE

BULK RATE
PERMIT NO. 588
BINGHAMTON, N.Y.

IF NOT MAILED IN BINGHAMTON, NEW YORK