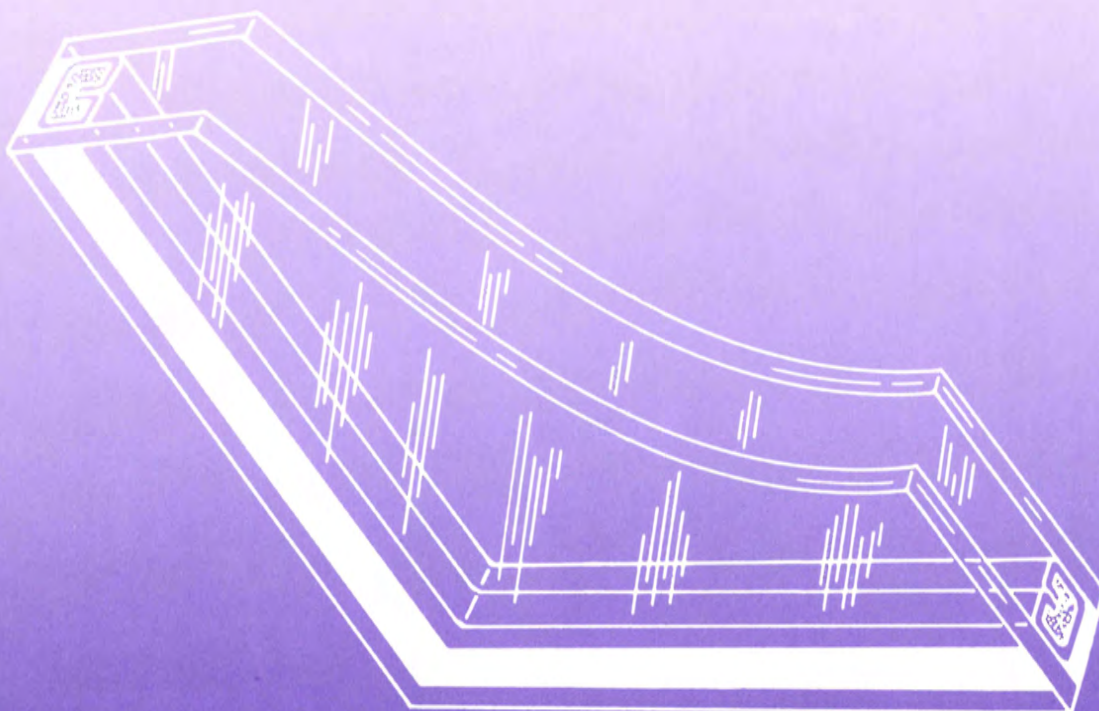


CERTIFIED PRODUCTS DIRECTORY

SEALED INSULATING GLASS

FEBRUARY 1, 1986



INSULATING GLASS

IGCC®

CERTIFICATION COUNCIL

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION

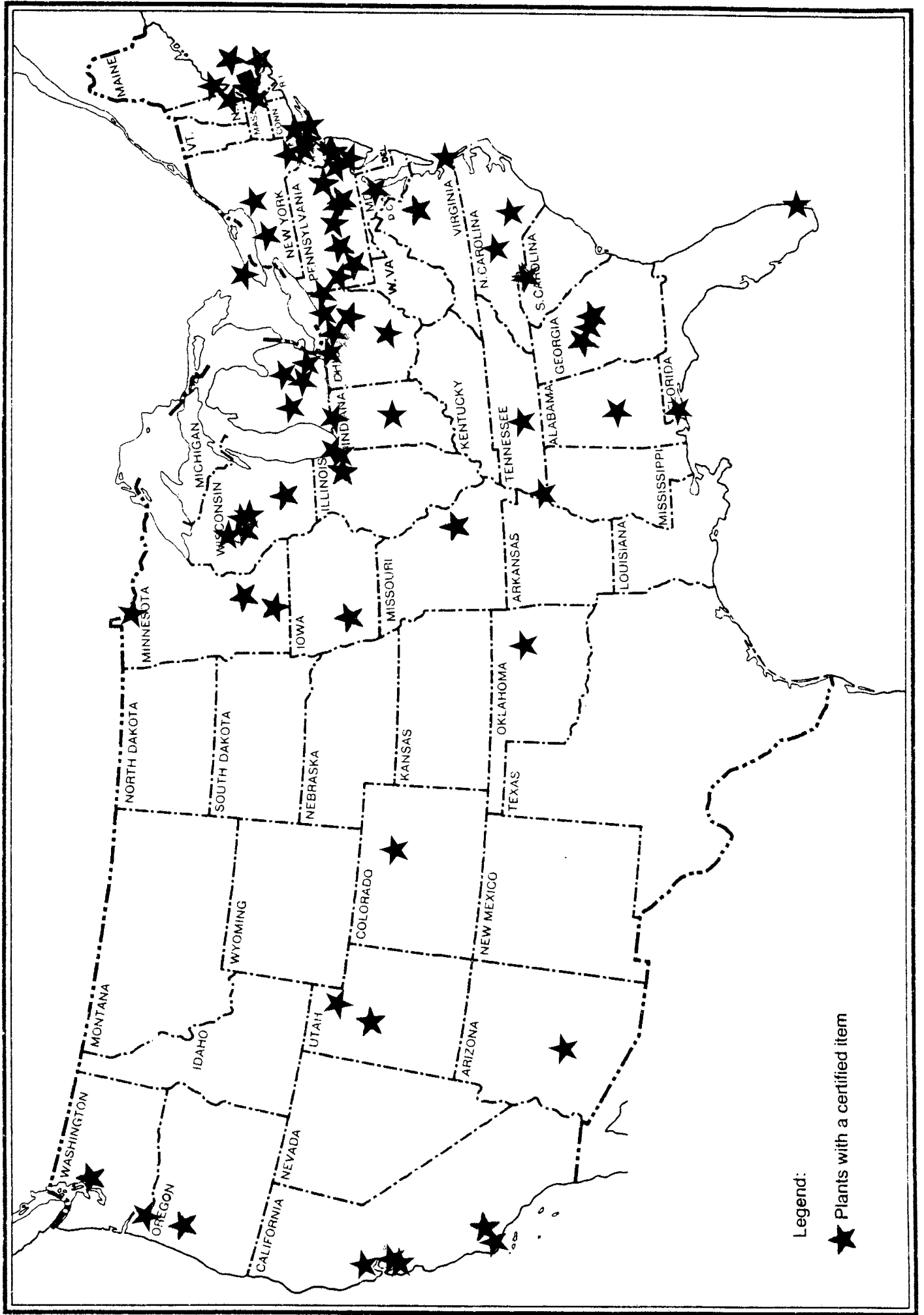


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Insulating Glass Certification Council,® 1980

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 E774-84a for Sealed Insulating Glass." This specification basically classifies sealed units into three categories; C, B, or A, depending upon durability in the accelerated testing. It is the policy of IGCC to remain flexible in referencing specifications and test methods in order to best reflect changing technology and new developments.

IGCC's responsibilities through its administrator are to see that periodic inspections and independent laboratory tests are performed on participating manufacturers' products and to validate the right of that manufacturer to use the IGCC label on his product or product information claims.

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

The 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 E774-84a. 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 |
|---|--------------|---------------------|-----------|--------|-----------|---------|
| Acorn Building Components, Inc. 87 Taylor Street Quincy, Michigan 49082 517-639-3465 | IGCC-362 CBA | NYK | U | AL | MS | PS |
| | IGCC-365 CBA | NYK | U | AL | MS | PS |
| Advanced Coating Technology, Inc. 306 Beasley Drive Franklin, Tennessee 37064 615-790-6001 | IGCC-248 CBA | ALK/S | U/C | AL | MS/SG | B/PS |
| | IGCC-253 CBA | ALK/S | U/C | AL | MS/SG | B/S |
| Air Master Corporation 1211 Ford Road Bensalem, Pennsylvania 19020 215-638-8600 | IGCC-376 CBA | NYK | U | AL | MS | PS |
| | IGCC-377 CBA | NYK | U | AL | MS | HMB |
| | IGCC-380 CBA | NYK | U | AL | MS | PU |
| Air Seal Insulating Glass Units Co. 522 Powell Street Gloucester City, New Jersey 08030 609-456-3922 | IGCC-357 CBA | NYK | U | AL | MS | PS |
| Air-Win Manufacturing, Inc. 10 Dell Glen Avenue Lodi, New Jersey 07644 201-478-3044 | IGCC-491 CBA | NYK | U | AL | MS/SG | PS |
| All Season Glass Co., Inc. 231 Herbert Avenue Closter, New Jersey 07624 201-767-8300 | IGCC-507 CBA | NYK | U | AL | MS | PU |
| | IGCC-509 CBA | NYK | U | AL | MS | HMB |
| Anderson Glass & Mirror Products 2816 Morse Road Columbus, Ohio 43229 614-476-4877 | IGCC-332 CBA | NYK | U | AL | MS | PU |
| Antcliff Aluminum Products 2417 East Judd Road Burton, Michigan 48529 313-742-5963 | IGCC-471 CBA | NYK | U | AL | MS | PU |
| Assurance Glass Company P.O. Box 1452 Selma, Alabama 36701 205-875-1900 | IGCC-420 CBA | NYK | U | AL | MS/SG | B/PS |
| | IGCC-421 CBA | NYK | U | AL | MS/SG | B/S |
| B & G Glass & Mirror Company, Inc. 11866 Hubbard Livonia, Michigan 48150 313-522-0300 | IGCC-466 CBA | NYK | U | AL | MS | B/PS |
| | IGCC-467 CBA | NYK | U | AL | MS | B/S |
| J. E. Berkowitz, Inc. Delsea Drive & Harvard Avenue Route 47 Westville, New Jersey 08093 609-456-7800 | IGCC-352 CBA | NYK | U | AL | MS | B/PS |
| | IGCC-493 CBA | NYK | U | AL | MS | R/S |
| Better Thermo Unit 2+2 1530 Landmeier Road P.O. Box 1446 Elk Grove Village, Illinois 60007 312-593-2980 | IGCC-164 CBA | ALK/S | U | AL | MS/SG | B/PS |
| Binning's Building Products, Inc. Walser Road P.O. Box 868 Lexington, North Carolina 27292 704-249-9193 | IGCC-239 CBA | NYK | U | AL | MS/SG | HMB |
| Boss Glass Industries 321 Changebridge Road Pine Brook, New Jersey 07058 201-227-2200 | IGCC-502 CBA | NYK | U | AL | MS | B/S |

CERTIFIED PRODUCTS

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|--------------|---------------------|-----------|--------|-----------|---------|
| Canadian Glass Division of Ford Glass Ltd. 8484 Keele Street Concord, Ontario L4K 2S3 CANADA 416-363-7561 | IGCC-319 CBA | NK/S | U | AL | MS | B/PS |
| | IGCC-429 CBA | NK/S | U | AL | MS | B/S |
| Capitol Aluminum & Glass Corporation 1276 West Main Street Bellevue, Ohio 44811 419-483-7050 | IGCC-484 CBA | NYK | U | ST | MS/SG | B/PS |
| Capitol Glass and Aluminum Corp. 3515 South 300 West Salt Lake City, Utah 84115 801-268-2521 | IGCC-176 CBA | ALK/S | U | AL | MS/SG | B/S |
| | IGCC-499 CBA | PLK | U | AL | MS/SG | B/PS |
| Capitol Products Corporation 6034 Carlisle Pike Mechanicsburg, Pennsylvania 17055 717-766-7661 | IGCC-288 CBA | NYK | U | AL | MS/SG | PS |
| Cardinal IG Iowa 25 North P. O. Box 99 Greenfield, Iowa 50849 515-743-2134 | IGCC-311 CBA | ALK/S | U/C | AL | MS | B/S |
| Cardinal IG 7115 West Lake Street Minneapolis, Minnesota 55426 612-929-0317 | IGCC-244 CBA | ALK/S | U/C | AL | MS | B/S |
| Cardinal IG 1011 East Madison Street Spring Green, Wisconsin 53588 608-588-7415 | IGCC-324 CBA | ALK/S | U/C | AL | MS | B/S |
| Clearvue Insulating Glass Company 6515 Bessemer Avenue Cleveland, Ohio 44127 216-429-0209 | IGCC-346 C | NYK | U | AL | MS/SG | PS |
| Ecker Manufacturing Company 4055 10th Avenue New York, New York 10034 212-304-1300 | IGCC-427 CBA | NYK | U | AL | MS | HMB |
| | IGCC-448 CBA | NYK | U | AL | MS | PU |
| Economy Glass Corporation 365 Dorchester Avenue (Rear) South Boston, Massachusetts 02127 617-269-5000 | IGCC-218 CBA | DCK | U | AL | MS | B/PS |
| Ellstrom Manufacturing, Inc. 1540 N.W. Ballard Way Seattle, Washington 98107 206-789-3000 | IGCC-165 CBA | DCK | U | AL | MS/SG | PS |
| | IGCC-468 CBA | DCK | U | AL | MS | PS |
| Falconer-Lewistown, Inc. 1 Belle Avenue Lewistown, Pennsylvania 17044 717-242-2571 | IGCC-566 CBA | NYK | U | AL | MS | B/PS |
| Floral Glass Industries, Inc. 224 Sandbank Road Cheshire, Connecticut 06410 203-272-2211 | IGCC-503 CBA | W | U | AL | MS | B/S |
| Floral Glass Industries of Ohio 4520 Willow Parkway Cuyahoga Heights, Ohio 44125 216-341-2110 | IGCC-333 CBA | W | U | AL | MS | B/S |
| | IGCC-524 CBA | DCK | U | AL | MS | PU |
| Floral Insulating Glass Products, Inc. 895 Motor Parkway Hauppauge, New York 11787 516-692-2880 | IGCC-223 CBA | W | U | AL | MS | B/S |

CERTIFIED PRODUCTS

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|--------------|---------------------|-----------|--------|-----------|---------|
| Florian Greenhouse 64 Airport Road West Milford, New Jersey 07480 201-728-7800 | IGCC-514 CBA | NYK | U | AL | MS | PU |
| General Glass Corporation 11205 East 37th Avenue Denver, Colorado 80238 303-371-5511 | IGCC-245 CBA | NYK | U | AL | MS/SG | PS |
| | IGCC-269 CBA | NYK | U | AL | MS/SG | HMB |
| | IGCC-442 CBA | ALK | U | AL | MS/SG | HMB/S |
| Glasstemp, Inc. 1001 Foster Avenue Bensenville, Illinois 60106 312-595-3750 | IGCC-455 CBA | ALK/S | U/C | AL | MS/SG | B/PS |
| | IGCC-456 CBA | ALK/S | U/C | AL | MS/SG | B/S |
| Glastek Corporation 4024 Millersville Road Indianapolis, Indiana 46205 317-788-9978 | IGCC-368 CBA | NYK | U | AL | MS | PU |
| | IGCC-370 CBA | ALK/S | U | AL | MS | B/PU |
| Graham Architectural Products Corp. 1551 Mt. Rose Avenue York, Pennsylvania 17405 717-848-3755 | IGCC-167 CBA | DCK | U | AL | MS/SG | HMB |
| | IGCC-353 CBA | NYK | U | AL | MS/SG | HMB |
| | IGCC-513 CBA | NYK | U | AL | MS/SG | HMB |
| | IGCC-514 CBA | DCK | U | AL | MS | HMB |
| Harvey Industries, Inc. 725 Huse Road Manchester, New Hampshire 03103 603-622-4232 | IGCC-504 CBA | NYK | U | AL | MS/SG | HMB |
| Havlin-Witkin Corporation 750 Walsh Avenue P.O. Box 666 Santa Clara, California 95052 408-727-4711 | IGCC-160 CBA | ALK/S | U | AL | MS/SG | B/S |
| | IGCC-407 CBA | ALK/S | U | AL | MS/SG | B/S |
| Hoffer's, Inc. 5103 Janice Avenue Schofield, Wisconsin 54476 715-845-7221 | IGCC-371 C | NYK | U | AL | MS | PS |
| Hordis Brothers, Inc. 22411 South Bonita Street Carson, California 90745 213-830-6460 | IGCC-400 CBA | NYK | U | AL | MS | PS |
| | IGCC-401 CBA | NYK | U | AL | MS | B/PS |
| | IGCC-402 CBA | NYK | U | AL | MS | B/S |
| Hordis Brothers, Inc. 1100 N. W. 159th Drive Miami, Florida 33169 305-621-3664 | IGCC-405 CBA | NYK | U | AL | MS | B/PS |
| Hordis Brothers, Inc. 1548 Stone Ridge Drive Stone Mountain, Georgia 30083 404-939-6900 | IGCC-182 CBA | DCK | U | AL | MS | PS |
| | IGCC-183 CBA | DCK | U | AL | MS | B/PS |
| | IGCC-419 CBA | NYK | U | AL | MS | B/S |
| Hordis Brothers, Inc. 5334 Barthel Drive Albertville, Minnesota 55301 612-497-3212 | IGCC-317 CBA | ALK/S | U | AL | MS | B/PU |
| | IGCC-360 CBA | ALK/S | U | AL | MS | B/S |
| | IGCC-361 CBA | NYK | U | AL | MS | B/PU |
| Hordis Brothers, Inc. P.O. Box 368 Warrenton, Missouri 63383 314-456-3452 | IGCC-186 CBA | ALK/S | U | AL | MS | B/S |
| | IGCC-412 CBA | NYK | C | AL | MS | B/S |
| | IGCC-482 CBA | NYK | U | AL | MS | PU |
| | IGCC-483 CBA | ALK/S | U | AL | MS | B/PU |
| Hordis Brothers, Inc. 825 Hylton Road Pennsauken, New Jersey 08110 609-662-0400 | IGCC-386 CBA | NYK | U | AL | MS | B/S |
| | IGCC-432 CBA | NYK | C | AL | MS | B/S |
| Hordis Brothers, Inc. 1500 Glen Avenue Moorestown, New Jersey 08057 609-234-9222 | IGCC-494 CBA | NYK | U | AL | MS | B/S |
| | IGCC-495 CBA | NYK | U | AL | MS | B/PU |

CERTIFIED PRODUCTS

| Ljicense | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|----------------|------------------------|-----------|--------|-----------|---------|
| Hordis Brothers, Inc. 1900 Midland Street Rock Hill, South Carolina 29731 803-366-5167 | IGCC-497 CBA | NYK | U | AL | MS | B/S |
| | IGCC-498 CBA | NYK | U | AL | MS | B/PU |
| Hurd Millwork Company 520 South Whelen Avenue Medford, Wisconsin 54451 715-748-2011 | IGCC-276 CBA | NYK | U | AL | MS | PS |
| Independent Insulating Glass Company 3145 Columbus Avenue Chicago, Illinois 60652 312-925-2300 | IGCC-328 CBA | PLK | U | AL | MS | B/PS |
| | IGCC-329 CBA | PLK | U | AL | MS | B/S |
| Independent Insulating Glass/Southeast, Inc. 520 Wharton Circle, S. W. Atlanta, Georgia 30336 404-691-3300 | IGCC-500 CBA | PLK | U | AL | MS | B/PU |
| | IGCC-501 CBA | PLK | U | AL | MS | B/S |
| Insolair Industries, Inc. 909 Aldridge Road Vacaville, California 95688 707-446-4500 | IGCC-238 CBA | W | U | AL | MS/SG | B/S |
| Insulpane, Inc. 335 Temple Hill Road New Windsor, New York 12550 914-562-8500 | IGCC-492 CBA | NYK | U | AL | MS | B/PS |
| Interstate Glass Company, Inc. 3801 South Main Street South Bend, Indiana 46624 219-291-5150 | IGCC-307 CBA | NYK | U | AL | MS/SG | PS |
| Kensington Manufacturing Company P.O. Box 571 Leechburg, Pennsylvania 15656 412-845-8133 | IGCC-146 CBA | NYK | U | AL | MS | HMB |
| Labrador Glass Specialties 3233 East Corona Avenue Phoenix, Arizona 85040 602-243-4277 | IGCC-418 CBA | NK/W | U | AL | MS | B/S |
| Lewistown Econopane Insulating Glass Co., Inc. 201 6th Avenue P. O. Box 248 Burnham, Pennsylvania 17009 717-242-0373 | IGCC-344 CB | DCK | U | AL | MS | PS |
| Mannix Industries, Inc. 345 Crooked Hill Road Brentwood, New York 11717 516-231-0800 | ICGG-446 CBA | NYK | U | AL | MS | PS |
| Marvin Windows P.O. Box 100 Warroad, Minnesota 56763 218-386-1430 | IGCC-281 CBA | NYK | U | AL | MS/SG | HMB |
| | IGCC-303 CBA | NYK | U | AL | MS/SG | PU |
| | IGCC-496 CBA | NYK | U | AL | MS/SG | B/PU |
| Memphis Glass Insulators, Inc. 2950 Fleetbrook Memphis, Tennessee 38116 901-332-3287 | IGCC-486 CBA | NYK | U | AL | MS | PS |
| | IGCC-487 CBA | NYK | U | AL | MS | B/PS |
| | IGCC-490 CBA | NYK | U | AL | MS | B/S |
| Mercer Industries, Inc. 2636 N.W. 26th Avenue P.O. Box 10166 Portland, Oregon 97210 503-226-2511 | IGCC-268 CBA | NYK | U | AL | MS | HMB |
| | IGCC-440 CBA | NYK | U | AL | MS | HMB |
| | IGCC-441 CBA | NYK | U | AL | MS | HMB/PS |
| Metropolitan Insulated Glass, Inc. 900 Old Liverpool Road Liverpool, New York 13088 315-451-9188 | IGCC-503 C | DCK | U | AL | MS/SG | PS |

CERTIFIED PRODUCTS

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|--------------|---------------------|-----------|--------|-----------|---------|
| Multipane of New England, Inc. 105 Norwood Avenue P.O. Box 368 Newtonville, Massachusetts 02160 617-964-8188 | IGCC-327 CBA | NYK | U | AL | MS | B/PS |
| | IGCC-443 CBA | NYK | U | AL | MS | B/S |
| Norco Windows, Inc. P.O. Box 309 Hawkins, Wisconsin 54530 715-585-6311 | IGCC-301 CBA | NYK | U | AL | MS/SG | PS |
| North American Manufacturing, Inc. 551 Concord Street Holliston, Massachusetts 01746 617-429-6300 | IGCC-232 CBA | NYK | U | AL | MS | HMB |
| | IGCC-444 CBA | NYK | U | AL | MS | PS |
| Peco Industries, Inc. 3119 Hammonds Ferry Road P. O. Box 7375 Baltimore, Maryland 21227 301-247-5900 | IGCC-342 CBA | NYK | U | AL | MS | PU |
| PPG Industries, Inc. 17851 N.W. Miami Court Miami, Florida 33169 305-652-3350 | IGCC-240 CBA | ALK | U/C | ST | MS | B/HMB |
| PPG Industries, Inc. 500 Third Avenue Ford City, Pennsylvania 16226 412-763-1211 | IGCC-159 CBA | NK/W | U/C | ST | SG | B/HMB |
| Rochester Insulated Glass, Inc. 5966 Collette Road P. O. Box 267 Victor, New York 14564 716-924-3024 | IGCC-451 CBA | NYK | U | AL | MS | B/S |
| S N E Corporation 910 Cleveland Avenue P.O. Box 1007 Wausau, Wisconsin 54401 715-845-1161 | IGCC-395 CBA | NYK | U | AL | MS | PU |
| SIGCO, Inc. 299 Presumpscott Street Portland, Maine 04103 207-775-2676 | IGCC-156 CBA | DCK | U | AL | MS | PS |
| Soft-Lite/Mintz Corporation 7009 Krick Road Bedford, Ohio 44146 216-232-9200 | IGCC-465 CBA | NYK | U | AL | MS | HMB/PU |
| Solar Pane, Inc. 3375 Addison Drive P. O. Box 17920 Pensacola, Florida 32514 904-477-1201 | IGCC-389 CBA | NYK | U | AL | MS/SG | B/HMB |
| Solar Seal Company 55 Bristol Drive South Easton, Massachusetts 02375 617-238-0112 | IGCC-117 CBA | ALK/S | U | AL | MS | B/PS |
| | IGCC-163 CBA | ALK/S | U | AL | MS | B/S |
| Solar Seal South, Inc. 100 South Leadbetter Road Ashland, Virginia 23005 804-798-6051 | IGCC-518 CBA | DCK | U | AL | MS | B/PS |
| Southern Wholesale Glass, Inc. 3200 Austell Road Marietta, Georgia 30060 404-434-2041 | IGCC-141 CBA | NYK | U | AL | MS | PS |

CERTIFIED PRODUCTS

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|--|--|----------------------------|--------------------------|----------------------|----------------------------------|----------------------------|
| Spectrum Glass Products P.O. Box 408 Clinton, North Carolina 28328 919-592-7101 | IGCC-221 CBA IGCC-222 CBA | DCK/S DCK/S | U/C U/C | ST ST | MS/SG MS/SG | B/PS B/S |
| Storm Weather Products, Inc. 3621 "B" Street Philadelphia, Pennsylvania 19134 215-425-5300 | IGCC-379 CBA | NYK | U | AL | MS | PU |
| Sunglas Products, Inc. P. O. Box 963 Claremore, Oklahoma 74018 918-342-3344 | IGCC-458 CBA IGCC-459 CBA IGCC-460 CBA IGCC-461 CBA | DCK DCK NK/W NK/W | U/C U/C U/C U/C | AL AL AL AL | MS/SG MS/SG MS/SG MS/SG | B/PS B/S B/PS B/S |
| TAS, Inc. 11955 South Vincennes Blue Island, Illinois 60406 312-331-3644 | IGCC-560 CBA IGCC-561 CBA | DCK DCK | U U | AL AL | MS/SG MS/SG | B/PU B/PS |
| TAS North, Inc. 4000 Central Drive Wausau, Wisconsin 54401 715-845-9251 | IGCC-480 CBA IGCC-481 CBA | DCK DCK | U U | AL AL | MS/SG MS/SG | B/PU B/PS |
| Tempglass, Inc. 291 "M" Street Willis Day Industrial Park Perrysburg, Ohio 43551 419-666-2000 | IGCC-264 CBA | ALK/S | U | AL | MS/SG | B/S |
| Tempglass Eastern, Inc. 1441 Blue Ridge Industrial Park P.O. Box 928 Norcross, Georgia 30071 404-476-4123 | IGCC-384 CBA | ALK/S | U | AL | MS | B/S |
| Tempglass Western, Inc. 48999 Kato Road Fremont, California 94539 415-651-2292 | IGCC-406 CBA | ALK/S | U | AL | MS/SG | B/S |
| Thermalator Mfg. Corporation 32 Brunswick Avenue Edison, New Jersey 08817 201-572-9000 | IGCC-516 CBA | NYK | U | AL | MS | PU |
| Thermoseal Glass Corporation 400 Water Street Gloucester City, New Jersey 08030 609-456-3109 | IGCC-510 CBA | DCK | U | AL | MS/SG | PS |
| TRACO (Three Rivers Aluminum Company, Inc.) Cranberry Industrial Park P. O. Box 805 Warrendale, Pennsylvania 15095 412-776-7000 | IGCC-439 CBA IGCC-453 CBA | NK/W NYK | U U | AL AL | MS MS/SG | B/S HMB |
| Ultralum 960 Seville Road Wadsworth, Ohio 44281 216-336-3523 | IGCC-151 CBA | NYK | U | AL | MS | HMB |
| Varano Glass Company 422 Jefferson Avenue, S. E. Grand Rapids, Michigan 49503 616-459-3569 | IGCC-470 CBA | NYK | U | AL | MS | PU |
| Viracon, Inc. 800 Park Drive P.O. Box 248 Owatonna, Minnesota 55060 507-451-9555 | IGCC-153 CBA IGCC-169 CBA | ALK/S ALK/S | U/C U/C | AL AL | MS/SG MS/SG | B/PU B/S |

CERTIFIED PRODUCTS

| Licensee | IGCC Number | Corner Construction | Substrate | Spacer | Desiccant | Sealant |
|---|------------------------------|---------------------|-----------|----------|-----------|------------|
| Walker & Laberge Co., Inc. 7613 East Sewells Point Road Norfolk, Virginia 23513 804-587-8701 | IGCC-345 CBA | NYK | U | AL | MS | B/S |
| Weather Shield Mfg., Inc. 675 East Allman Street P.O. Box 309 Medford, Wisconsin 54451 715-748-2100 | IGCC-178 CBA IGCC-408 CBA | NYK NYK | U U | AL AL | MS MS | PU B/PU |
| Weather Shield Mfg., Inc. 2990 South 8th West Route 1 Box 103 Logan, Utah 84321 801-753-6590 | IGCC-277 CBA | NYK | U | AL | MS | PU |
| Wisconsin Window Unit Company Div. of Hurd Millwork Company South Prospect Street P.O. Box 437 Merrill, Wisconsin 54452 715-536-5581 | IGCC-372 CBA | NYK | U | AL | MS | PS |

CERTIFIED PRODUCTS KEY

Sealant:

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

Corner:

ALK = Aluminum key
 DCK = Die cast key
 NYK = Nylon key
 PLK = Plastic key
 NK = No key

S = Soldered
 W = Welded
 BR = Brazed

Desiccant:

MS = Molecular sieve
 SG = Silica gel
 MS/SG = Blend of molecular sieve
 and silica gel

Spacer:

AL = Aluminum
 ST = Steel

Substrate:

U = Uncoated
 U/C = Uncoated/Coated

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

"PROTOTYPE IN PROGRESS"

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

MANUFACTURERS

| | |
|---|---|
| BINNING'S BUILDING PRODUCTS LEXINGTON, NORTH CAROLINA | INDIA GLASS ALTONA, NEW YORK |
| CAPITOL PRODUCTS CORPORATION MECHANICSBURG, PENNSYLVANIA | MODERN WINDOW CORPORATION DETROIT, MICHIGAN |
| GLASSTEMP, INC. BENSENVILLE, ILLINOIS | PPG INDUSTRIES, INC. DENVER, COLORADO |
| GUARDIAN INDUSTRIES CORPORATION CARLETON, MICHIGAN | PPG INDUSTRIES, INC. HUNT VALLEY, MARYLAND |
| HORDIS BROTHERS, INC. CARSON, CALIFORNIA | PPG INDUSTRIES, INC. FARMERS BRANCH, TEXAS |
| INDEPENDENT INSULATING GLASS/S. W. DALLAS, TEXAS | WEATHER SHIELD MFG., INC. MEDFORD, WISCONSIN |

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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ROSTER

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IGCC CERTIFICATION COMMITTEE

John M. Schlueter, Chairman

| <u>Licensee</u> | <u>Primary Member</u> | <u>First Alternate</u> | <u>Second Alternate</u> |
|-------------------------------------|------------------------|------------------------|-------------------------|
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| Better Thermo Unit 2+2 | Robert F. Trapp | | |
| Binning's Building Products | Robert Luedy | | |
| Canadian Glass | Richard L. Morrison | | |
| Capitol Aluminum & Glass Corp. | Robert C. Wagner | | |
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| Interstate Glass Company, Inc. | James De Craene | | |
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| Solar Pane, Inc. | Bradley J. Hanssen | | |
| Solar Seal Company | Frederic P. Shaw, Jr. | | |
| Southern Wholesale Glass | Douglas A. Long | | |
| Sunglas Products, Inc. | Richard L. Morrison | Mitchel Edwards | |
| TRACO | Robert P. Randall | | |
| Viracon, Inc. | Harold Landsman | Ken Ortman | James Cunningham |
| Weather Shield Mfg., Inc. | James Sorge | John White | David Schield |

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| | |
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| Texas Tech University | Joseph E. Minor |
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Bayport, Minnesota 55003

IGCC® LABEL REQUIREMENTS

THE IGCC CERTIFICATION LABEL MUST BE PERMANENTLY MARKED ON A VISIBLE PORTION OF EACH SEALED INSULATING GLASS UNIT OR IT IS NOT CERTIFIED BY THE MANUFACTURER TO THE PUBLIC.

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

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

The IGCC permanent label must contain the company identification, plant code, registered "IGCC®" mark, C, CB, or CBA rating level and a date code spanning no more than a 12 month period, plus or minus one month and commencing with the beginning of each calendar year (effective for both the beginning and ending of each period). The IGCC permanent label must be affixed to certified products only at the time and place of manufacture. Outdated spacers may be hand stamped to bring the label up to date. The company identification and plant code will consist of an Alpha Numeric Code, 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:

(presently)

IGCC® 999 CBA L80

(revised)

| <u>Company Identification</u> | <u>Plant Code</u> | <u>IGCC®</u> | <u>Rating Level</u> | <u>Year Code</u> |
|-------------------------------|-------------------|--------------|---------------------|------------------|
| ZEBRA | 01 | IGCC® | CBA | '86 |

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 |
| Gennard J. Catalano | Hordis Bros. | 1983 - 1985 |

MEETINGS OF THE
CERTIFICATION COMMITTEE

The Certification Committee of the Insulating Glass Certification Council met on January 15 and 16, 1986.

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 February 1, 1986; 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. Claude F. Robb
Administrator
ETL Testing Laboratories, Inc.
Route 11 - Industrial Park
P.O. Box 2040
Cortland, New York 13045

Telephone: 607-753-6711

* * * * *



c/o ETL Testing Laboratories, Inc.
Industrial Park — Route 11
Cortland, NY 13045
607-753-6711

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

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

1. IGCC is the sponsor of a Certification Program. IGCC does not certify products.
2. The Administrator inspects laboratories and checks their equipment; inspects Licensees' production and fabrication of specimens; and validates test reports and certification claims.
3. Laboratories test specimens to specific test methods and specifications, referenced by IGCC.
4. Manufacturer/Licensees "certify" their products, affirming that their products are constructed similarly to specimens which were inspected, tested and found to pass the stated criteria. A Licensee's Certification Statement is the imprinting, sandblasting, etching or other form of permanent marking of an IGCC Certification Program designation and number to its product.
5. IGCC does not have "members," inasmuch as the term "members" carries with it a connotation that some detailed criteria must be met in order to participate in the organization. Under the IGCC concept, anyone can participate, and "participants" simply must possess a "legitimate interest in the purposes of IGCC." Manufacturers, on the other hand, which are "fabricators of sealed insulating glass units," become Participants by virtue of executing a License Agreement with IGCC. Any manufacturer of insulating glass may voluntarily enter into a license agreement with IGCC, provided it intends to certify at least one product under the IGCC Certification Program. Thus, the proper term to use for a manufacturer Participant is Licensee. A manufacturer, with a prototype 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 E774-84a 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. Claude F. Robb
Administrator
ETL Testing Laboratories, Inc.
Route 11 - Industrial Park
Cortland, New York 13045
Telephone: 607-753-6711

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION.

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 E774-84a 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 license agreement is the governing document for operation of the certification program. This procedural guide, which is not an extension of that document, serves merely to describe the administrative procedures and routine operation of the certification program.

GENERAL INFORMATION

The Certification Concept

The IGCC certification program is based upon the conviction that no standard of quality is good without the continuous adherence of the licensees to that standard.

To buyers, specifiers, code officials and users, the IGCC certification label offers the manufacturer's assurance that his sealed insulating glass units have been produced in conformance to the ASTM specification E774-84a.

Who Can Participate?

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

Who Conducts the Program?

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

Administration

ETL Testing Laboratories, Inc. (ETL) is the independent administrator of the certification program. ETL maintains the IGCC office of certification and handles the routine day-to-day business. All transactions are done in the name of IGCC.

How Can You Become a Licensee?

The following steps must be accomplished before IGCC can authorize a manufacturer to use the IGCC permanent label:

- a) The manufacturer must present a passing prototype report from an approved IGCC testing laboratory (fabrication of which was witnessed by the Administrator) to the IGCC office.
- b) The manufacturer signs two copies of the IGCC license agreement (including notarization of the Affidavit, Appendix A) and sends these to the IGCC office. IGCC will countersign both copies and return one to the licensee.

- c) The Appendix A, to the Licensee Agreement, contains a description of the model (prototype report attached) that will be authorized to use the IGCC permanent label.
- d) The licensee sends to IGCC the twelve-month certification fee.
- e) After receipt by IGCC of the above, the administrator validates that particular model and sends to the licensee a notice of authorization to use the IGCC permanent label. The permanent label must be affixed on each certified sealed insulating glass unit.
- f) The certified model will then be listed in the next published certified products directory.

HOW THE CERTIFICATION PROGRAM WORKS

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

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

Administrator Authorizes Certification

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

Licensees label sealed insulating glass units in accordance with the labeling requirements established by the IGCC certification committee.

Approved products are listed in the certified products directory, which is published 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. 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 automatically terminated. If the retest option is accepted, the administrator will perform an inspection and witness fabrication of the retest specimens within 45 days of payment of fees.

Challenging a Certified Product

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

Complaints by Consumers

The administrator shall receive and log the complaint; responding to the consumer with a certified products directory and instructions on how to locate the IGCC label.

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

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

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

Withdrawal of Certified Product

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

COSTS

What Does the Program Cost?

The initial fee will be for a period of twelve months. However, the next invoice to a licensee will have the fees prorated to the nearest whole month in such a manner that participation in the Certification Program will be on a February 1 to January 31 basis. A licensee is invoiced for each item that is certified and listed separately in the certified products directory. An additional invoice for testing laboratory fees will be issued prior to the six month period during which the specimens will be fabricated and tested.

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

CERTIFICATION PROGRAM DOCUMENTS AND AGREEMENTS

License Agreement

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

Future amendments or revisions to the license agreement will be recommended by the IGCC certification committee and enacted by the IGCC Board of Governors.

Effective Date, Duration, and Termination

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

Administrative Service Agreement

This agreement entered into by IGCC and ETL Testing Laboratories, Inc., governs the relationship between IGCC and ETL, the independent administrator. In general, it provides that the administrator:

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

Procedural Guide

This guide outlines program procedures in accordance with the provisions of the License Agreement and the Administrative Service Agreement, for the guidance of those concerned with the procedural details of the certification program's operation. It covers the steps to be taken in any given procedural situation in the interest of equitable and uniform treatment of licensees and the preservation of the integrity of the certification program.

Certified Products Directory

This directory is the one document and publication that is normally in the public's eye and contains a listing of the certified sealed insulating glass units of each licensee.

Certification Label

This certification mark is permanently affixed to each unit of certified sealed insulating glass by the licensee. It contains a code that refers to the listing in the certified products directory. The listing then provides a product description including the company name, plant location, etc.

PROGRAM RESPONSIBILITY

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

The IGCC certification committee has the responsibility for the general procedure and policy pertaining to operation of the certification program. As a part thereof, it:

- a) establishes "guidelines"
- b) determines the applicability of the specifications in a specific situation where a question is raised by a licensee or the administrator
- c) approves test laboratories
- d) determines which of the specifications are to be designated effective for the purposes of product certification and the date or dates on which they become effective
- e) recommends to the IGCC Board of Governors changes to be made in the license agreement.

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.2

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

A.GL.3

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

A.GL.4

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

A.SP.2

Any change in spacer wall thickness from that tested.

A.SP.3

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

A.SP.4

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

A.SP.5

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

A.SP.6

Mechanically fastened corners may be changed to bent, uncut corners using the same IGCC number, provided the remaining connections utilize the same mechanical fastening technique as previously certified. (Adopted 2/19/85)

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.1

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

A.SE.2

Changes within a generic type of sealant shall use G-5 for demonstrating equivalency and to maintain the same IGCC number.

NEVER

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

SPACER

N.SP.1

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

N.SP.2

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

N.SP.3

A change in corner design from mechanical to soldered, welded or brazed and vice versa will require a different IGCC number.

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.DE.1

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

SEALANT

N.SE.1

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

N.SE.2

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

N.SE.3

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

N.SE.4

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

N.SE.5

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

GENERAL

CLASS I - UNIT MODIFICATION

DEFINITIONS

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

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

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

G.0 - (Added Guideline - 8/14/85)

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

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

G.1 - Breather Tube (Temporarily Open Type)

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

G.2 - Breather Tube (Temporarily Open Type)

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

G.3 - Edge Protection

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

G.4 - Coated Glass

Inorganically coated glass may be used provided that the sealant or sealants contact the original glass substrate or contact silica or a glass-like material.

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 light divided arrangement in a diagonal pattern. The IGCC label cannot be used on a sealed insulating glass unit unless the tested prototype contained internal muntins.

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)

CLASS II - SPECIMEN

G.6 - Specimens - Quantity

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

G.9 - Specimens - Production

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

G.10 - Specimens - Production

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

G.11 - Specimens - Production

A portion of an unannounced inspection will be a check, to some degree, to determine whether a licensee is using an IGCC label on unauthorized units.

G.12 - Specimens - Shipment

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

G.14 - Specimen Frequency

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

CLASS III - LABELING

G.7 - Labeling

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

G.17 - Labeling - Qualification

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

G.18 - Labeling

The IGCC permanent label must contain the company identification, plant code, registered "IGCC" mark, C, CB, or CBA rating level and a date code spanning no more than a 12 month period, plus or minus one month and commencing with the beginning of each calendar year (effective for both the beginning and ending of each period).

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:

- 1) immediately notify the administrator with all details of the change.
- 2) establish equivalency by passing the same level of ASTM test as certified to by:
 - a) having specimens tested at an IGCC independent testing laboratory or
 - b) having specimens tested at an in house (licensee) facility or
- 3) demonstrate the equivalency of the change to the satisfaction of the certification committee. (Specimens not required.)

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

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

G.21 - Transfer

If a licensee manufactures the same model using the same technology, at a different location, a certification number with a temporary status will be issued, provided that within sixty days a test be initiated. The model must pass the same level of test as the original model and shall be treated as a routine retest except appeals, reviews and reconsiderations will not be available.

G.23

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

CLASS V - APPEALS, REVIEWS AND DE-CERTIFICATION

G.13 - Monetary

The administrator shall remove authorization to use the IGCC permanent label from all of any licensee's products for failure to pay monies due to IGCC within 30 days of invoice date (reference License Agreement A.13 and B.6).

G.16 - Appeals

In cases where a routine test fails to comply with the Specifications:

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

If the retest option is accepted:

1) Request for retest option is granted by IGCC only by receipt in full of any administrative and retest fees within 15 days of date of mailing of the notification of failure.

2) IGCC will perform an inspection and witness fabrication of retest specimens within 45 days of payment of fees in 1) above.

3) Licensee must ship and deliver retest specimens to the testing laboratory within 7 days of fabrication. (Copy of shipping papers and delivery receipt must be received by IGCC within 14 days of fabrication of retest specimens.)

b) There is to be no change in certification status during the retest period.

c) All routine inspections will continue. Sample fabrication for subsequent routine testing of the questionable model will be suspended pending the outcome of the retest.

d) If the retest units comply, they shall be considered as the next routine text.

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 E773-83 & E774-84A

LABORATORIES

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

Telephone 717-846-7700

National Certified Testing Laboratories
Five Leigh Drive
York, Pennsylvania 17402
Attention: Mr. David G. Moyer

Telephone 717-846-1200

Jim Spetz Testing Laboratory
29308 Armadale Avenue
Wickliffe, Ohio 44092
Attention: Mr. James L. Spetz, P.E.

Telephone 216-944-3665

Northwest Laboratories of Seattle, Inc.
1530 First Avenue South
Seattle, Washington 98134
Attention: Mr. Richard J. Schefsky

Telephone 206-622-0680

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

IN ADDITION TO THE ABOVE, THE FOLLOWING LABORATORY
IS APPROVED FOR TESTING "PROTOTYPE" UNITS:

ETL Testing Laboratories, Inc.
Route 11 - Industrial Park
P.O. Box 2040
Cortland, NY 13045
Attention: Mr. George F. Mosey
Telephone 607-753-6711



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

Industrial Park - Route 11
Cortland, NY 13045
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.
2. To encourage and cooperate in developing standards related to performance characteristics of insulating glass products.
3. To plan, organize, direct, coordinate and sponsor a certification program for insulating glass manufacturers to assure that their products meet applicable standards and/or performance requirements, adopted or approved by the Council.

ANNUAL FEE

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

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

CREDIBILITY IN INDUSTRY CERTIFICATION THROUGH ACTIVE PUBLIC PARTICIPATION.



ETL TESTING LABORATORIES, INC.
INDUSTRIAL PARK • ROUTE 11
CORTLAND, N.Y. 13045
PHONE 607-753-6711

IGCC DIRECTORY ORDER FORM

PLEASE SEND . . . _____ copies of IGCC® Certified
Products Directory at \$2.00/copy = \$ _____ to:

_____ Name

_____ Company

_____ Address

_____ City _____ State _____ Zip Code

2/86
IGCC®

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LUPT UK LEAK UUI PEKE

SPECIFICATION USED FOR SEALED INSULATING GLASS
ASTM E774-84A

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.

INSULATING GLASS
IGCC[®]
CERTIFICATION COUNCIL
ETL TESTING LABORATORIES, INC.
INDUSTRIAL PARK • ROUTE 11
CORTLAND, NY 13045

Address Correction Requested

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