



**Technical Bulletin
Rev. 1/1/11**

**Glazing Requirements for Silicone Dual Sealed Insulating Units
used in Sloped Glazing or Skylights**

Vitro America requires that only Silicone Dual Sealed Insulating Units be used for sloped glazing applications (glass glazed 15° or more off vertical). The insulating units must be set on setting blocks. The framing system must be weeped to the exterior or it must be a structural silicone glazing system. Centering shims must be used with wet sealants. We strongly recommend that a Structural Silicone Glazing system be used for sloped glazing. This type of system will eliminate the need for weep holes (which are difficult to design for sloped glazing systems) and will prevent water from collecting around the edge of the insulating unit. Increased bite is required for Sloped Glazing (see Chart). The glazing system details shown are generic and are not intended to represent any specific glazing system. The glazing principles set forth in the Insulating Glass Manufacturers' Alliance (IGMA) North American Glazing Guidelines for Sealed Insulating Glass for Commercial and Residential Use and the Glass Association of North America (GANA) *Glazing Manual* should be followed. Please refer to an actual copy of the warranty for further glazing requirements. These requirements apply to all types of framing system materials: aluminum, steel, vinyl or fiberglass. Wood is not recommended for sloped glazing situations.

Copies of the IGMA booklet, North American Glazing Guidelines for Sealed Insulating Glass for Commercial and Residential Use TM-3000 (04) are available from:

Insulating Glass Manufacturers Alliance
1500 Bank Street, Suite 300
Ottawa, ON K1H 1B8
Canada

Copies of the GANA *Glazing Manual* are available from:

Glass Association of North America
800 SW Jackson Street, Suite 1500
Topeka, KS 66612-1200



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Glazing Requirements for Silicone IG Units in Sloped Glazing

Please note that Vitro America **does not warrant glass against breakage from any cause**. Vitro America's warranty on insulating units covers seal failure only. Vitro America will assist our customers in determining the potential for thermal stress, snow load or windload breakage, but glass breakage must be handled as a matter of statistical probability.

Weep Holes

Three weep holes must be provided for each insulating unit. Each weep hole must be equal in area to a 3/8" diameter hole. One weep hole must be located between the setting blocks and the other two weep holes must be located between the setting blocks and the adjacent mullions. Weep holes are not required on 4-side structural silicone glazing systems (see drawings).

Setting Blocks

"Setting blocks" or "L" blocks will be needed at the ¼ points of all four edges to bear the weight of the insulating unit until the silicone has cured in structural silicone glazing systems. Very large units may require blocks at the ½ points, also. "L" blocks must be as tall as the insulating unit thickness minus 1/8", at least as thick as the minimum edge clearance and 0.1" in length for each square foot of glass area with a minimum length of 4". Setting blocks must be made of a resilient material such as Neoprene, Santoprene, EPDM or extruded silicone. The setting blocks must be compatible with all IG and glazing sealants, and they must be 80 - 90 Durometer, Shore A, in hardness, and meet the requirements of ASTM C 864 *Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks and Spacers*.

Shims

If "L" blocks are NOT used, then shims will be required. Resilient shims made of a material such as Neoprene, Santoprene, EPDM or extruded silicone that have a hardness of 80 - 90 Durometer, Shore A, must be used with gun-able sealants or butyl tapes. Dry glazed systems will be deemed suitable if glazed with Neoprene, Santoprene, EPDM or extruded silicone glazing gaskets supplied by the system manufacturer. The shims must be compatible with all IG and glazing sealants.

Sealants

Compatibility testing must be done by the supplier of the waterproofing sealant. The waterproofing sealant must be compatible with the silicone IG sealant used to make the unit (contact the production center to find out what sealant is being used). A signed letter from the waterproofing sealant manufacturer should be kept in the job file to confirm sealant compatibility.



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Warranty Requirements for Sloped Glazing Silicone Sealed Insulating Units

Maximum Unit Size: 84 X 144, not to exceed 40 square feet

| | |
|---------------------------|--------------------------------|
| 1/2" Spacer, 5.0 mm glass | <u>Max. Area</u> 16 Sq. Ft. |
| 1/2" Spacer, 6.0 mm glass | 40 Sq. Ft. |

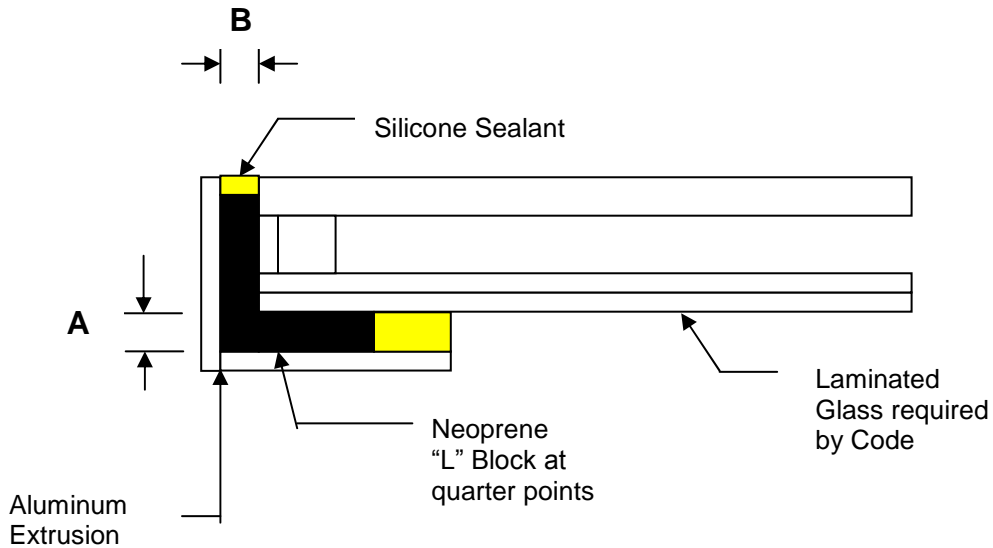
(Standard height spacers at least 1/2" wide must be used)

Glazing Pocket Clearance

| <u>Unit Type</u> | <u>Minimum Clearance</u> | | |
|--------------------------|--------------------------|-----------------|-----------------|
| | <u>A = Face</u> | <u>B = Edge</u> | <u>C = Bite</u> |
| 7/8" or thicker IG Units | 3/16" | 1/4" | 3/4" |

Required Glass Bite and Edge and Face Clearances for Sloped Insulating Glass Units

(Units glazed more than 15° off vertical are "Sloped Glazing")



A = Face Clearance
B = Edge Clearance
C = Bite



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