Installation Instructions

The following instructions represent general and accepted industry practices for product installation. It is not the intention of Global Security Glazing to exclude or prohibit other installation techniques that are appropriate to specific building designs.

Global Security Glazing's product must be installed in accordance with proper glazing techniques as set forth in the Glass Association of North America (GANA) Glazing Manual and Sealant Manual 2010 (or most current edition). Clearance recommendations shown must be followed to protect all products from excessive pressure or glass-to-metal contact, which can cause breakage. Install setting blocks not less than four inches long and slightly wider than the glazing at quarter points. Incorporate a weep system into exterior glazing systems. The installation of glass should be considered a finishing procedure. During glazing, product surfaces should be protected from paint, plaster, chemical splash, or welding spatters. Polycarbonate surfaces exposed to direct sunlight must have masking removed and recovered with plastic film and duct taped to the frames. Failure to do so may cause staining or shadows later.

Some PVC, EPDM, neoprene gasket, sealant, and setting blocks are not compatible with Global Security Glazing products and can cause cloudiness and delamination. Please refer to Global Security Glazing Cleaning Instructions document for cleaning solutions compatible with glass and polycarbonate. Assume materials are not compatible unless they have been approved by Global Security Glazing. The following materials have been found to be compatible:

Compatible Sealants, Gaskets, Tapes

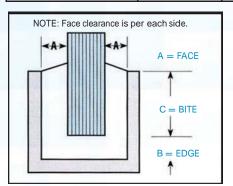
Silicone: Dow 795, Dow 999, GE Silpruf, GE 1200 Gasket: Tremco Silicone (70D), Tremco EPDM (60,70D)

Tape: Tremco 440

Butyl Tape: KPTI 303, Isocryl 5600

Face, Edge, and Bite Clearance

Product	Thickness	Face	Edge	Bite
Laminated Glass	1/4" 1/2" to 1"	1/8" 1/4"	1/4" 3/8"	5/8" 5/8"
Bullet Resistant (All Glass, Secur-Tem+Poly [®] , & Lexgard [®])	3/4" to 2 1/8"	1/8"	3/8"	1"
Inferno-Lite [®]	13/16" to 1 1/8"	1/8"	1/4"	3/4" to 1"
Secur-Lite [®]	5/16" to 9/16"	1/8"	3/8"	3/4" to 1"
Secur-Tem [®] / Secur-Lite X [®]	7/16" to 15/16"	1/8"	1/4"	1"
Detention/Containment (SecurTem+Poly [®] & Lexgard [®])	7/16" to 2 1/2"	1/8"	1/4"	1"



Cleaning Instructions for Glass and Polycarbonate

Glass and polycarbonate must be handled and cleaned properly during the installation process. Glass and polycarbonate products can be permanently damaged if improperly handled or cleaned. Global Security Glazing recommends strict compliance with the following procedures.

Uniformly apply a mild solution of soap and water or a nonabrasive commercial window-washing solution to the surface using applicator methods. Remove all liquid from the surface with a soft flannel or cotton cloth immediately following the application of the cleaning solutions. Care should be taken to ensure that no metal, sand, or foreign particles become trapped between the cloth and the substrate. These particles, if allowed to contact the glass or polycarbonate surface, will mar and damage the glazing. All cleaning solutions should be dried from the window gaskets and sealants to avoid the potential for deterioration as a result of the cleaning process. Do not apply cleaners in direct sunlight or at elevated temperatures. Do not use razor blades or squeegees to clean hard- to-remove substances. Do not use abrasive or highly alkaline cleaners. Benzene, gasoline, acetone, MEK, and carbon tetra-chloride should never be used on polycarbonate surfaces. Assume materials are not compatible unless they have been approved by Global Security Glazing. Cleaning agents found to be compatible with glass and polycarbonates are as follows:

Compatible Cleaners and Detergents

Formula 409 Joy Windex with Ammonia D VM & P Naphtha Grade Isopropyl Alcohol



Global Security Glazing 616 Selfield Road Selma, Alabama 36073

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Glazing Products Limited Warranty

Customer Name: Project Name: Product Type: Date of Manufacture:



1. What Global Security Glazing Warrants.

Subject to the terms and conditions of sale, including any terms and conditions set forth by Global Security Glazing ("GSG" or "us" or "we") in any applicable ordering document (collectively, the "Terms") for any laminated glass, glass clad polycarbonate, laminated polycarbonate, fire rated or safety or security products purchased by the purchaser ("you" or "Purchaser") from GSG (the "Products"), GSG represents and warrants:

- (a) that, as applicable, the glass clad polycarbonate, laminated polycarbonate, fire rated or safety or security constructions fabricated in composite or insulating configurations sold by GSG in any Products purchased by you will not delaminate for a period of five (5) years from the date of manufacture.
- (b) that, as applicable, the laminated glass constructions fabricated in stand-alone or insulating configurations sold by GSG in any Products purchased by you will not delaminate for a period of five (5) years from the date of manufacture.
- (c) that, if applicable, any pyrolytic, CVD, MSVD, silicone or ceramic coating, used in the Product construction, will not flake, chip, peel, blister or deteriorate in excess of 1/8" into the viewing area for a period of five (5) years from the date of manufacture.
- (d) that, if applicable, the Insulated Glass Unit (IGU) in any Products purchased by you will not have material obstruction of the vision area due to failure of the organic edge seal resulting in moisture intrusion of the dehydrated cavity for a period of five (5) years from date of manufacture.
- (e) that, if applicable, the laminated or fully tempered glass sold and labeled as safety glazing and incorporated into any Products purchased by you conforms to the standards or requirements of ANSI Z 97.1, ANSI Z 26.1, CPSC 16 CFR 1201, ASTM or other applicable industry standards set forth by GSG and in effect at the time of manufacture. Glass products having third party certification or rated listing by National Standards Organizations conform to the labeled or listed construction for performance effective at time of manufacture.
- (f) Except as set forth in any Terms, the Products are free from any legal security interest, lien or encumbrances known to the GSG at time of sale.

The Purchaser, its specifiers, design professionals, assignees, agents, or owners of record, each acknowledge no reliance upon GSG, its officers, agents or any employee for determination or recommendation regarding the suitability, compatibility or intended use of GSG Products and that such determination shall be incumbent upon the Purchaser. Notwithstanding anything to the contrary herein, GSG makes no warranties, and hereby disclaims all warranties, regarding any components or products or services provided by any third parties, including without limitation GSG's third party suppliers.

The sole responsibility of GSG shall be that it will manufacture the Products in accordance with its published specifications and that the Products will be free from material defects in material and workmanship. GSG's liability for breach of an express warranty shall exist only if the Products are installed, started in operation, and tested and used in strict conformity with GSG's published instructions and any use limitations or restrictions provided by GSG, including without limitation those listed in Section 3. GSG expressly excludes any warranty whatsoever concerning Products which have been subject to misuse, negligence, or accident, or altered or repaired by others than GSG or GSG's duly authorized agent. This warranty is expressly made in lieu of any and all other warranties, express or implied. Except as otherwise set forth herein, GSG warrants that the Products shall substantially conform to the warranties in this Section 1 for the period specified in each subsection above, or, if no period is specified, a period of 18 months after the date the Products are shipped from GSG (the "Warranty Period").

2. This Limited Warranty Is Conditional.

This Limited Warranty only applies to Products that are installed and used in the United States.

EXCEPT AS EXPRESSLY PROVIDED IN SECTION 1, THE PRODUCTS ARE PROVIDED "AS IS" (WITH ALL FAULTS) AND THE ENTIRE RISK AS TO SATISFACTORY PERFORMANCE, ACCURACY, AND EFFORT IS WITH PURCHASER. EXCEPT AS PROHIBITED BY LAW, ALL OTHER WRITTEN, ORAL, STATUTORY EXPRESS OR IMPLIED WARRANTIES BY ANY AGENT, REPRESENTATIVE OR EMPLOYEE OF GSG INCLUDING, BUT NOT LIMITED TO, FITNESS FOR ANY PARTICULAR PURPOSE, TITLE OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS, OR MERCHANTABILITY IS EXCLUDED. GSG DOES NOT WARRANT THAT PRODUCTS WILL BE FREE FROM DESIGN DEFECTS OR ERRORS. EXCEPT AS PROHIBITED BY LAW, GSG SHALL NOT BE LIABLE FOR ANY INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INJURIES OR DEATH ARISING FROM THE USE OF ANY GSG PRODUCT WHETHER A CLAIM FOR DAMAGES IS BASED UPON DESIGN OR MANUFACTURING DEFECT, NEGLIGENCE, STRICT LIABILITY, INDEMNITY, WARRANTY, CONTRACT, TORT, OR ANY OTHER LEGAL THEORY. GSG DISCLAIMS ALL LIABILITY OF ANY KIND OF GSG'S SUPPLIERS AND LICENSORS.

This Limited Warranty is provided to the original Purchaser only, and applies to Products sold within North America after March 1, 2017. This Limited Warranty may not be modified, except by an officer of GSG in writing under notary seal. This Limited Warranty is personal to Purchaser and is not transferable or assignable. This Limited Warranty is invalid in the event Purchaser is delinquent in any amounts due to GSG or its affiliates under any order.

3. Exclusions to the Warranty.

The Limited Warranty only applies to the extent that Purchaser uses the glazing materials approved in writing by GSG and strictly complies with the cleaning instructions approved in writing by GSG. Additionally, the Limited Warranty excludes, and GSG is not liable in any way for any warranty claims related to:

- (i) Damage resulting in breakage (including without limitation spontaneous breakage, accidental breakage, thermal breakage or breakage by any other means) of a Product or any component part;
- (ii) Environmental Stress Cracking (ESC) of plastic components, including but not limited to crazing and cracking.

Glazing Products Limited Warranty

- (iii) External scratches post-installation, blemishes or process marks of an intensity or frequency less than listed in *ASTM C 1036 Standard Specification for Flat Glass*, or that are demonstratively inherent to standard or proprietary processes such as, but not limited to, visual distortions or perceptible strain patterns:
- (iv) Contact with un-approved non-compatible materials, installation in extreme vibration or high temperatures (defined as not to exceed120F for laminated glass and glass clad polycarbonate nor 500F for monolithic tempered), pressure vessels, or high humidity, corrosive or other detrimental atmospheres (including without limitation, swimming pool viewing windows or enclosures, green houses, foundry cabs, slope glazing, or framing that does not capture all edges and either preclude or manage water infiltration);
- (v) Normal wear and tear, abuse, exposure to weathering, improper design, faulty installation;
- (vi) Product modification or alteration including without limitation the use of surface applied films;
- (vii) Failure to comply with technical documents, written instructions, building code, state and Federal regulations, or failure to seek or exercise reasonable engineering support and judgment;
- (viii) Material specified and provided in excess of primary glass manufacturers recommendations or industry recognized norms such as, but not limited to, fifty (50) square feet in area, or exceeding the manufacturing limitations listed in the corresponding product specification sheet:
- (ix) Insulated Glass Units with plastic as an individual lite, i.e., AIR GAP UNITS, or units installed with unsealed capillary tubes;
- (x) Force Majeure including but not limited to, earthquake, hurricane, tornado, flooding, or other disasters natural or man-made. Civil unrest, strikes, declared or undeclared war, or lack of performance by, or discontinued product of, supply chain partners whose products, software, operations or management is beyond the control of GSG; and
- (xi) Any use or installation of Products outside the United States.

4. Purchasers Sole Remedy.

GSG's sole obligation, and Purchaser's exclusive remedy (including any entity or person claiming by or through Purchaser) in the event of breach of warranty or product defect shall be, in GSG's sole discretion, that GSG shall repair or replace such GSG Product (FOB Plant of Manufacture), or refund the purchase price for such Product. Any Products replaced under the terms of this Limited Warranty will be covered under the terms and balance of the duration of the original Limited Warranty for such Product.

5. Filing a Claim.

All claims must be filed in writing to Quality Manager, Global Security Glazing 616 Selfield Rd, Selma, AL 36073 within 30 days of discovery of a defective product. Warranty claims made after the Warranty Notice Period are null and void and GSG shall have no responsibility with respect to such claims. Please provide proof of purchase, and current location of product in any claims filing. GSG reserves the right to perform a field investigation of the installation. The investigation may include sampling of defective product and materials used in glazing operations, framing, sealants, surrounding construction and laboratory assistance in evaluating your claim. No repair or replacement will begin, other than substitution for sampling, until satisfactory determination of cause is established by GSG.