

Installation Guidelines

Guidelines

These guidelines are to be used in addition to, and in conjunction with, the guidelines in the latest edition of the *Glazing Manual* published by the Glass Association of North America and Oldcastle Glass® *Glazing Instructions*, section 17, pages 1-6. These should be included as part of the glazing specifications. Failure to follow these guidelines may result in voiding of the warranty.

Setting Blocks

All laminated glass should be installed on setting blocks positioned on the lower edge at the quarter points. The setting block should have a Shore A durometer of 85 ± 5 , support the entire thickness of the glass and be 0.1" long, per square foot of glazing, but not less than 4" in length. Ensure that the setting blocks are manufactured from Santoprene, Silicone, EPDM or any other material compatible with silicone and the rest of the glazing components. Pay particular attention to compatibility when the laminated glass contains a polycarbonate.

Clearances

Adequate clearances must be maintained to prevent glass damage or breakage as a result of glass-to-metal contact. A minimum of a 1/8" face clearance should be maintained using a cushioning material. Edge clearance should be a minimum of 1/4"; however, due to the expansion of polycarbonate, any laminate containing this material should have a 1/16" edge clearance per foot of glass length. To reduce in-service breakage, avoid excessive clamping pressures, especially on thin annealed glass, such as the low-spall glass on bullet-resistant materials.

Edge Engagement

All forced-entry glass must have a minimum of a 1" edge engagement. Clearances and setting block allowances are in addition to this engagement. Any reduction in this edge engagement can cause the performance of the product to be reduced and the test certificate may no longer be applicable.

Weep System

The edges of laminated glass must not be exposed to standing water. All framing systems must be designed to accommodate a reliable weep system, as no cap seal is 100% reliable. In addition, it is extremely important that any cleaning solutions used on either face of the glass be allowed to drain out of the frame. It is the responsibility of the designer and the installer to ensure that the weep system works correctly. Do not glaze any laminated glass in a system without adequate drainage.

Sealants and Caulking

An appropriate sealant should be used to seal the glazing to the frame. Sealant and caulking manufacturers regularly change their products' raw materials. Therefore, it is essential that the installer checks with the appropriate manufacturer for compatibility of any product, before use. This is particularly important for security glazing containing polycarbonate, as some solvents used in sealants can cause crazing and ultimate failure of the product. This warning also applies to any varnishes, primers or paints used on the framing system. These finishes should be allowed to fully dry before glazing commences.

Threat Surface

Most bullet-resistant glazing products and some forced-entry products are not symmetrical and have a threat side, attack face or impact face. All glass of this type supplied by Oldcastle Glass® is shipped with a removable label specifying the impact face. This side **MUST** be installed toward the threat side. Failure to do this can seriously affect the ability of the product to resist the specified threat. This label should be left on until final inspection and/or sign-off occurs.

(continued on back)

Installation Guidelines

Guidelines (continued)

Storage

Shipments should be scheduled so that glass is stored on the site for a maximum of 30 days. If the glass is to be stored for longer than this, it should be removed from the construction site to a controlled environment. When on the site, store crates indoors and keep them dry. Ensure that the stored glass remains above the dew point at all times; otherwise, condensation and staining can occur. Protect the crates from exposure and possible damage from the practices of other construction trades.

Handling

Only remove the glass from the crates when it is ready to be installed. Remove glass from the front of the crate—never by sliding to the side. On security glass with exposed polycarbonate, pay particular attention to this face. Never allow glass to rest on uncushioned surfaces. When exposed polycarbonate is supplied with a protective removable sheet, this must be removed immediately after the installation. Never allow the sun to bake this protective film on to the glazing. Never allow anything to rest against the glass. DO NOT install any glass that has been damaged, however slightly. Even small cracks at the edges can ultimately “run” due to thermal expansion while in service. Oldcastle Glass® does not warrant glass breakage.

Cleaning

Do not expose the edges of any laminated glass to organic solvents, acids or any cleaner containing ammonia, which can react with the plastic components. Once the glazing is installed, the glazing contractor should ensure that the glazing is protected from possible damage caused by the construction practices of other trades.

Take particular care during the initial cleaning, especially if the surfaces are severely soiled. Never attempt to remove dry deposits. NEVER use a sharp blade or scraper to remove deposits or clean the glass.

First flush with water to soften and remove as many contaminants as possible. Then use a clean squeegee to remove excess water, ensuring that abrasive deposits do not get trapped between the squeegee and the glass surface. Then use a mild nonabrasive, nonalkaline cleaner and a soft, grit-free cloth to clean the glass. Rinse immediately with water, removing excess water with a squeegee.

For routine cleaning, a mild soap or detergent, with lukewarm water, can be used with a clean, grit-free cloth. Dry the surface immediately and never allow metallic or hard objects, such as razor blades or scrapers, to come into contact with the glass.

Cleaning Exposed Polycarbonate

All exposed polycarbonate has a mar-resistant coating; however, extra care must be taken to avoid scratching or other damage. Do not use any abrasive cleaners or solvents. Wash with a mild detergent, such as Formula 409®, and lukewarm water, using a clean, grit-free cloth. Rinse immediately with clean water and dry with a chamois or moist cellulose sponge to avoid water spots.

Fresh paint, grease and smeared glazing compounds can be removed using isopropyl alcohol. Afterward, wash with warm water and a mild detergent, as noted above.

