



## Glazing

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### PART 3 – EXECUTION

#### 3.1 SURFACE CONDITIONS

- A. The purchaser must examine the areas and conditions under which work of this Section will be performed. Correct conditions are critical to the timely and proper completion of this work. Do not proceed until unsatisfactory conditions are corrected.
- B. After preparation of the glazing system, clean glazing channels, stops and rabbets to receive the glazing materials, making free from obstructions and deleterious substances which might impair the work.
  - 1. Remove protective coating which might fall in adhesion or interfere with bond of sealants.
  - 2. Comply with manufacturers' instructions for final wiping of surfaces immediately prior to application of primer and glazing compounds or tapes. USE ONLY NEUTRAL CURE GE SILGLAZE N10.

#### 3.2 INSTALLATION

- A. Inspect each piece of glass immediately prior to start of installation.
  - 1. Do not install items which are improperly sized, have damaged edges, or are scratched, abraded, or deficient in any other manner.

# Glazing

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## 3.2 INSTALLATION (continued)

2. Do not remove labels that were provided by the glass supplier from the glass until so directed by the Architect or Project Manager.
  3. Adhere to all Switchglass installation instructions and installation drawings.
- B. Locate sill setting blocks of standard width and thickness at quarter points of all glass lights unless otherwise recommended by manufacturer or supplier.
1. Use blocks of proper durometer, size and thickness to support the glass in accordance with the manufacturers' recommendations.
  2. Glass lap and edge clearances must be provided according to AS2208
- C. Set glass in a manner which produces the greatest possible degree of uniformity in appearance.
1. Installations of the glass in dynamic frames such as operable windows or sliding doors must meet architectural specifications.
  2. Glazing to the exterior and wet interior conditions must be wet-sealed and impervious to moisture with provisions to allow for weeping of condensation that may infiltrate the system.
  3. Pressure glazing systems without positive positioning stops are not to be used with this glass.
  4. Glazier has to place electrical connections properly to allow access by an electrician.
  5. Electrical connections must exit at the head condition of any framing system using Switchable glass panels in wet environment applications.
- D. Cut and seal the joints of glazing gaskets in accordance with Australian Glazing Standards' , provide watertight and airtight seal at corners and other locations where joints are required.
- E. The terms of the limited warranty are applicable only to the extent that proper installation techniques are utilized.

## Glazing (Section 08800.2)

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### 3.3 PROTECTION

Protect glass from breakage after installation by promptly installing streamers or ribbons, suitably attached to the framing and held free from the glass. Do not apply warning markings, streamers, ribbons, or other items directly to the glass except as specifically directed by the Architect/ project Manager.

Note: Windblown objects, welding sparks, or other material applied to the glass surface during construction may cause irreversible damage.

### 3.4 CLEANING

Cleaning of the glass during the subsequent weathering period is necessary. Abrasive cleaners should never be used, particularly when the surface to be cleaned has a reflective coating. Clean the Panels with a mild soap or very weak acid (vinegar) applied with a soft, clean, grit-free cloth. The glass and framing should be rinsed immediately with water and the excess should be squeezed away from the glass, taking care not to contact the glass with any metal parts. The framing should be wiped dry.

# Appendix I: Glazing Guidelines

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## 1. SETTING/GLAZING

Switchable Glass panels may be oriented in any direction. The Australian Glass and Glazing Guidelines are to be followed except as noted.

### Glazing Methods:

#### A. Interior Applications - Laminated panels

**Dry Glazing:** This is preferred interior glazing method.

**Wet Glazing:** If an elastomeric (non-acetic) sealant is used, it must be compatible with the panel's polyvinyl butyral (PVB) interlayer and EVA interlayer. Never use putty or glazing compound to glaze a Switchable glass panel. GE Siliglaze N10 is the only manufacturer's approved tested sealant.

#### B. Exterior Applications - Insulated Glass Units made with Switchable Glass

**Wet Glazing:** Pre-shimmed glazing tape and non-acetic sealants are required to create a seal impervious to moisture for all applications.

#### C. Butt-Joint Glazing: Switchable Glass panels can only be butt-joint glazed in interior applications.

#### D. Non-Acetic Sealants: The following sealants are listed as non-acetic by their manufactures. Confirm with these manufactures the compatibility of their respective sealants with regard to butt-joint glazing Switchable Glass panels (a PVB/ EVA laminated flat glass product).

- GE SSG4000
- Dow Corning 399, 795, 991, 995, 1199
- Rhodorsil 3B (Rhone-Poulenc)
- Schnee-Morehead SM5731

#### E. Structural Silicone Glazing: Insulated glass units manufactured with Switchable Glass panels should NOT be structurally silicone glazed.

# Appendix I: Glazing Guidelines (continued)

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## 2. FRAME DESIGN

Standard FGMA frame edge clearance and face clearances may be used, EXCEPT edge bite must be 11 mm minimum and framing must have a hole of 6mm diameter. To maintain a proper seal against the infiltration of water and air, adequate bite is required.

Inadequate clearance for the edges can cause damage due to glass-to-metal contact.

The industry standard for framing deflection must be adhered to. All expansion joints and anchors must be designed so that the glass framing does not incur a load due to structural movement.

## 3. SETTING BLOCKS

Glass larger than 0.5 square meters should be placed on two EPDM or neoprene setting blocks. These blocks should have a durometer hardness of 85±5. They should be centered at the bottom quarter points (i.e. equal distance). The blocks should be 1.5mm narrower than the channel width. Lock-strip gasket systems also require setting blocks. Recommendations can be obtained from the gasket manufacturers.

## 4. GLASS PROTECTION

Once the glass is installed, the architect, general contractor, or owner should provide for glass protection and cleaning. Weathering steel such as Cor-Ten or alkaline materials may cause surface damage due to staining. Abrasive cleaners should never be used, particularly when the surface to be cleaned has a reflective coating. Windblown objects, welding sparks, or other material applied to the glass surface during construction may cause irreversible damage.

## Appendix II: Shipping and Receiving

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### 1. SHIPPING

If no preferred carrier is specified, the Panels for domestic customers will be shipped through our common ground carrier.

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### 2. RECEIVING

Customers should inspect the shipment in the presence of the freight delivery driver to ensure no damage to the Panels has occurred. It is critical that this inspection take place in the presence of the freight delivery driver. If you fail to inspect the shipment, the carrier and Clear Glass Solutions PTY LTD are not responsible for the damages

Before signing for and accepting the shipment from the carrier, inspect the crate(s) for the following items:

- a. Inspect crate(s) for damage.

If there are any indications of possible damage, you should immediately, in the presence of the carrier, open the crate(s) and inspect each Panel for damage. If damage to any of the Panels is found, the shipping documents should be so noted and the driver's signature obtained as a witness. You should inform Clear Glass Solutions immediately of any damaged Panels. Photographs should be furnished. A freight claim should be filed to the carrier as early as possible.

### 3. UNCRATING

Keep the crate upright at all times while removing the cover. The crate may be tilted, leaning at 5° – 7° from vertical. To avoid possible damage to the Panels, open the lid side first. All perimeter edge blocking should be carefully loosened and removed so that the Panels don't have to be pried out of the crate. Remove the Panels carefully.

Warning: The loose wires from the Panels are not to be used for lifting, moving or positioning the Panels.

## Appendix II: Shipping and Receiving (continued)

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### 4. STORAGE

Glass edges frequently sustain damage due to careless handling at some point between manufacture and installation. Handle with care! If the glass is to be stored on the job site or in warehouse conditions, proper blocking and protection should be maintained at all times. As with other flat glass products, the Switchable Glass Panels must be stored where the relative humidity is less than 80% to prevent the glass from staining. The glass temperature should be held nearly constant to prevent moisture condensation on the Panels. Storage temperature range is  $-4 - 158^{\circ}\text{F}$  ( $-20 - 70^{\circ}\text{C}$ ). The crate of Panels should be kept in an upright position or tilted at  $5^{\circ} - 7^{\circ}$  from vertical at all times using broad, sturdy uprights to support the weight of the crate. The terms of the limited warranty are applicable only to the extent that proper storage techniques are utilized.

### 5. "UNEXPECTED" BREAKAGE

"Unexplained" glass breakage may occur even after all precautions have been taken. Such breakage is beyond the control of the manufacturer and therefore not warrantable. This includes but is not limited to the following types of breakage or other damage:

- thermal stress
- damage during sand blasting
- glazing system pressures
- damage during glazing
- handling and storage problems
- excessive wind loads
- objects and debris striking the glass
- damage by persons/objects at the construction site