

Part 1 General

1.1 SECTION INCLUDES

- .1 Glass and polycarbonate glazing for doors, windows and entrances.

1.2 RELATED SECTIONS

- .1 Section 08 41 13 - Aluminum Framed Entrances And Storefronts.
- .2 Section 08 54 13 – Fibreglass Windows.

1.3 REFERENCES

- .1 ASTM C864 - Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
- .2 ASTM E330 - Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- .3 ASTM E774 - Classification of the Durability of Sealed Insulating Glass Units.
- .4 ASTM D638 – Standard Test Method for Tensile Properties
- .5 ASTM D790 - Standard Test Method for Flexural Strength
- .6 ASTM D695 – Standard Test Method for Compressive Properties of Rigid Plastics.
- .7 GANA (Glass Association of North America) - Glazing Manual.

1.4 PERFORMANCE REQUIREMENTS

- .1 Size glass to withstand dead loads and positive and negative live loads acting normal to plane of glass as calculated in accordance with applicable code.
- .2 Limit glass deflection to 1/20 or flexure limit of glass with full recovery of glazing materials, whichever is less.

1.5 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data on Glass and Polycarbonate Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.

- .3 Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colours.

1.6 QUALITY ASSURANCE

- .1 Perform Work in accordance with GANA Glazing Manual glazing installation methods.
- .2 Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years documented experience.

1.7 ENVIRONMENTAL REQUIREMENTS

- .1 Do not install glazing when ambient temperature is less than 10 degrees C.
- .2 Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.8 WARRANTY

- .1 Provide manufacturer's standard warranties to include coverage for sealed glass units from seal failure, interpane dusting or misting, and replacement of same.

Part 2 Products

2.1 FLAT GLASS MATERIALS

- .1 Safety Glass: CAN/CGSB 12.1; clear, tempered; 6 mm thick.
- .2 Security 'Glass': ~~Clear Polycarbonate 6 mm minimum thickness.~~ **7mm polycarbonate sheet described in 2.3 below.**

2.2 SEALED INSULATING GLASS MATERIALS

- .1 Insulating glass (windows, exterior storefront/entrance): CAN2-12.8; double pane, clear; heat strengthened outer pane; Low E coating; argon filled cavities; performance (centre of glass) as follows:
 - .1 U-value: 0.26
 - .2 SHGC: 0.3
 - .3 Visible light transmittance: 65% minimum
 - .4 Edge Seal Construction: warm edge spacer, as recommended by glass manufacturer; colour black.

2.3 PLASTIC SHEET MATERIALS

- .1 Manufacturers:
 - .1 Rockglass
- .2 Polycarbonate Sheet; clear, 7mm thickness.
 - .1 **Include one-way reflective coating on inside face where privacy glass is indicated.**

2.4 GLAZING ACCESSORIES

- .1 Setting Blocks: Neoprene; 80 to 90 Shore A durometer hardness; length of 25 mm for each square metre of glazing or minimum 100 mm x width of glazing rabbet space minus 1.5 mm x height to suit glazing method and pane weight and area.
- .2 Spacer Shims: Neoprene; 50 to 60 Shore A durometer hardness; minimum 75 mm long x one half the height of the glazing stop x thickness to suit application.
- .3 Glazing Tape: Preformed butyl compound with integral resilient tube spacing device; 10 to 15 Shore A durometer hardness; coiled on release paper; black colour. Acceptable product: Tremco POLYshim II
- .4 Glazing Splines, Gaskets: Manufacturer's standard.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify existing conditions before starting work.
- .2 Verify that openings for glazing are correctly sized and within tolerance.
- .3 Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and ready to receive glazing.

3.2 PREPARATION

- .1 Clean contact surfaces with solvent and wipe dry.
- .2 Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- .3 Prime surfaces scheduled to receive sealant.
- .4 Perform installation in accordance with ASTM C804 for solvent release sealants or in accordance with manufacturer's instructions.

3.3 INSTALLATION - INTERIOR DRY METHOD (TAPE AND TAPE)

- .1 Cut glazing tape to length and set against permanent stops, projecting 1.6 mm above sight line.
- .2 Place setting blocks at 1/4 points with edge block no more than 150 mm from corners.
- .3 Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
- .4 Place glazing tape on free perimeter of glazing in same manner described above.
- .5 Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- .6 Knife trim protruding tape.
- .7 Fit tight to glass perimeter with razor cut edge.

3.4 INSTALLATION – EXTERIOR GLAZING

- .1 To be installed to storefront and fibreglass window manufacturer's instructions.

3.5 CLEANING

- .1 Remove glazing materials from finish surfaces.
- .2 Remove labels after Work is complete.
- .3 Clean glass and adjacent surfaces.

3.6 PROTECTION OF FINISHED WORK

- .1 After installation, mark pane with an 'X' by using removable plastic tape or paste.

3.7 SCHEDULE

- .1 Refer to drawings for locations of new windows and replacement of glazing units within existing frames.

END OF SECTION