

Approved: 2004-06-30

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.
- .3 Section 01 45 00 - Quality Control.
- .4 Section 01 78 00 - Closeout Submittals.
- .5 Section 08 11 00 - Metal Doors and Frames.
- .6 Section 08 14 16 - Flush Wood Doors.

1.2 REFERENCES

- .1 American National Standards Institute (ANSI).
 - .1 ANSI/ASTM E330-02, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- .2 American Society for Testing and Materials International, (ASTM).
 - .1 ASTM C542-94(1999), Specification for Lock-Strip Gaskets.
 - .2 ASTM D790-02, Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
 - .3 ASTM D1003-00, Test Method for Haze and Luminous Transmittance of Plastics.
 - .4 ASTM D1929-96(R2001)e1, Test Method for Determining Ignition Temperature of Plastics.
 - .5 ASTM D2240-02b, Test Method for Rubber Property - Durometer Hardness.
 - .6 ASTM E84-01, Test Method for Surface Burning Characteristics of Building Materials.
 - .7 ASTM F1233-98, Test Method for Security Glazing Materials and Systems.
- .3 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
 - .2 CAN/CGSB-12.2-M91, Flat, Clear Sheet Glass.
 - .3 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.
 - .4 CAN/CGSB-12.8-97, Insulating Glass Units.
 - .5 CAN/CGSB-12.10-M76, Glass, Light and Heat Reflecting.
- .4 Canadian Standards Association (CSA International).

- .1 CSA A440.2-98, Energy Performance Evaluation of Windows and Sliding Glass Doors.
- .2 CSA Certification Program for Windows and Doors 2000.
- .5 Environmental Choice Program (ECP).
 - .1 CCD-045-95, Sealants and Caulking.
- .6 Flat Glass Manufacturers Association (FGMA).
 - .1 FGMA Glazing Manual - 1997.
- .7 Laminators Safety Glass Association (LSGA).
 - .1 LSGA Laminated Glass Design Guide 2000.

1.3 SYSTEM DESCRIPTION

- .1 Performance Requirements:
 - .1 Provide continuity of building enclosure vapour and air barrier using glass and glazing materials as follow:
 - .1 Utilize inner light of multiple light sealed units for continuity of air and vapour seal.
 - .2 Size glass to withstand wind loads, dead loads and positive and negative live loads as measured in accordance with ANSI/ASTM E330.
 - .3 Limit glass deflection to 1/200 with full recovery of glazing materials.

1.4 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .3 Samples:
 - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures .
 - .2 Submit duplicate mm size samples of and sealant material.
- .4 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.
- .5 Closeout Submittals:
 - .1 Provide maintenance data including cleaning instructions for incorporation into manual specified in Section 01 78 00 - Closeout Submittals .

1.5 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

- .1 Provide testing and analysis of glass under provisions of Section 01 45 00 - Quality Control.
- .2 Provide shop inspection and testing for glass.
- .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Mock-ups:
 - .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control .
 - .2 Construct mock-up to including glass glazing, .
 - .3 Mock-up will be used:
 - .1 To judge workmanship, substrate preparation, operation of equipment and material application.
 - .4 Locate where directed.
 - .5 Allow 24 hours for inspection of mock-up before proceeding with work.
 - .6 When accepted, mock-up will demonstrate minimum standard of quality required for this work. Approved mock-up may not remain as part of finished work.
- .4 Pre-installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

1.6 SITE CONDITIONS

- .1 Environmental Requirements:
 - .1 Install glazing when ambient temperature is 10 degrees C minimum. Maintain ventilated environment for 24 hours after application.
 - .2 Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal .
- .2 Divert uninstalled materials for reuse at nearest used building materials facility or similar type facility.
- .3 Unused or damaged glazing materials are not recyclable and must not be diverted to municipal recycling programs.
- .4 Remove form site and dispose of packaging materials at appropriate recycling facilities.
- .5 Dispose of corrugated cardboard packaging material in appropriate on-site bin for recycling in accordance with site waste management program.

Part 2 Products

2.1 MATERIALS: FLAT GLASS

- .1 Wired glass: to CAN/CGSB-12.11, 6 mm thick.
 - .1 Type 1-Polished both sides (transparent).
 - .2 Wire mesh style: Square.

2.2 ACCESSORIES

- .1 Setting blocks: Neoprene, 80-90 Shore A durometer hardness to ASTM D2240, length of 25 mm for each square meter of glazing to suit glazing method, glass light weight and area.
- .2 Spacer shims: Neoprene, 50-60 Shore A durometer hardness to ASTM D2240, 75 mm long x one half height of glazing stop x thickness to suit application. Self adhesive on one face.
- .3 Glazing splines: resilient polyvinyl chloride, extruded shape to suit glazing channel retaining slot.
- .4 Lock-strip gaskets: to ASTM C542.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.2 EXAMINATION

- .1 Verify that openings for glazing are correctly sized and within tolerance.
- .2 Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.

3.3 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.

3.4 INSTALLATION: EXTERIOR - DRY METHOD (PREFORMED GLAZING)

- .1 Perform work in accordance with FGMA Glazing Manual and Laminators Safety Glass Association - Standards Manual for glazing installation methods .
- .2 Cut glazing tape to length; install on glazing light. Seal corners by butting tape and sealing junctions with sealant.
- .3 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.
- .4 Rest glazing on setting blocks and push against fixed stop with sufficient pressure to attain full contact.
- .5 Install removable stops without displacing glazing tape. Exert pressure for full continuous contact.
- .6 Trim protruding tape edge.

3.5 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Remove traces of primer, caulking.
- .3 Remove glazing materials from finish surfaces.
- .4 Remove labels after work is complete.
- .5 Clean glass and mirrors using approved non-abrasive cleaner in accordance with manufacturer's instructions.
- .6 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.6 PROTECTION OF FINISHED WORK

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

3.7 SCHEDULE

- .1 Refer to Door Schedule and Door Types for glazing types at transoms and doors.

END OF SECTION