

SECTION 08800 - GLAZING

PART 1 - GENERAL

SUMMARY

This Section includes glazing for the following products and applications:

Doors.

PERFORMANCE REQUIREMENTS

General: Provide glazing systems capable of withstanding normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

Glass Design: Glass thicknesses of 1/4" indicated are minimums and are for detailing only. Confirm glass thicknesses by analyzing Project loads and in-service conditions. Provide glass lites for various size openings in nominal thicknesses indicated, but not less than thicknesses and in strengths (annealed or heat treated) required to meet or exceed the following criteria:

Glass Thicknesses: Select minimum glass thicknesses to comply with ASTM E 1300, according to the following requirements:

Specified Design Wind Loads: 90 mph hurricane coast.

For insulating-glass units, properties are based on units with lites 6 mm thick and a nominal 1/2-inch- (13-mm-) wide interspace.

Center-of-Glass U-Values: NFRC 100 methodology using LBL-35298 WINDOW 4.1 computer program, expressed as Btu/ sq. ft. x h x deg F (W/sq. m x K).

Center-of-Glass Solar Heat Gain Coefficient: NFRC 200 methodology using LBL-35298 WINDOW 4.1 computer program.

Solar Optical Properties: NFRC 300.

WARRANTY

Special Warranty: Manufacturer's standard form, made out to Owner and signed by manufacturer, in which manufacturer agrees to furnish replacements for units that deteriorate from normal use by developing defects attributable to the manufacturing process, f.o.b. the nearest shipping point to Project site, within warranty period.

Insulating Glass:

Deterioration: Failure of hermetic seal resulting in obstruction of vision by dust, moisture, or film on interior surfaces of glass.

Warranty Period: 10 years from date of Substantial Completion.

**RENOVATIONS TO THE CHILDREN'S CENTER  
STEVENS AVE., PORTLAND, ME**

PART 2 - PRODUCTS

GLASS MATERIALS

Insulating-Glass Units: Preassembled units consisting of sealed lites of glass separated by a dehydrated interspace, and complying with ASTM E 774 for Class CBA units and with requirements specified in this Article and in the Insulating-Glass Schedule at the end of Part 3.

Provide Kind HS (heat-strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites and to comply with glass design requirements specified in "Performance Requirements" Article. Provide Kind FT (fully tempered) where safety glass is indicated.

Overall Unit Thickness and Thickness of Each Lite: Dimensions indicated in the Insulating-Glass Schedule at the end of Part 3 are nominal and the overall thicknesses of units are measured perpendicularly from outer surfaces of glass lites at unit's edge.

GLAZING SEALANTS

General: Provide products of type indicated, complying with the following requirements:

Compatibility: Select glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

Colors of Exposed Sealants: As selected.

Elastomeric Glazing Sealants: ASTM C 920, Type S (single component), Grade NS (nonsag), Class 25, Use NT (nontraffic), M, G, A, and, as applicable to glazing substrates indicated, O.

Cylindrical Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

GLAZING TAPES

Back-Bedding Mastic Glazing Tape: Preformed, butyl-based elastomeric tape with a solids content of 100 percent with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated and complying with ASTM C 1281 and AAMA 800 for products indicated below:

AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.

Expanded Cellular Glazing Tape: Closed-cell, PVC foam tape; factory coated with adhesive on both surfaces; packaged on rolls with release liner protecting adhesive; and complying with AAMA 800 for the following types:

Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

MISCELLANEOUS GLAZING MATERIALS

**RENOVATIONS TO THE CHILDREN'S CENTER  
STEVENS AVE., PORTLAND, ME**

General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

Setting Blocks: Elastomeric material with a Shore A durometer hardness of 85, plus or minus 5.

Spacers: Elastomeric blocks or continuous extrusions with a Shore A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

FABRICATION OF GLASS AND OTHER GLAZING PRODUCTS

Fabricate glass and other glazing products in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing standard, to comply with system performance requirements.

PART 3 - EXECUTION

GLAZING, GENERAL

Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

Protect glass edges from damage during handling and installation. Remove glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance from Project site and legally dispose of off Project site.

Apply primers to joint surfaces where required for adhesion of sealants, as determined by sealant compatibility and adhesion testing.

Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

Provide spacers for glass lites where the length plus width is larger than 50 inches (1270 mm) unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances.

Protection:

Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface.

Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter.

Remove and replace glass that is broken, chipped, cracked, abraded, or damaged, including natural causes, accidents, and vandalism, during construction period.

**RENOVATIONS TO THE CHILDREN'S CENTER  
STEVENS AVE., PORTLAND, ME**

MONOLITHIC FLOAT-GLASS SCHEDULE

Uncoated Clear Fully Tempered Float Glass FG: Class 1 (clear) Kind FT (fully tempered).

INSULATING-GLASS SCHEDULE

Uncoated Insulating Glass:

Overall Unit Thickness and Thickness of Each Lite: 1" and 1/4" as indicated.

Interspace Content: Argon.

Indoor Lite: Float glass, Class 1 (clear) float glass, Kind HS (heat strengthened).

Outdoor Lite: Float glass, Class 1 (clear), Kind FT (fully tempered).

END OF SECTION 08800