

Specifications Architectural

Short-Form Guide Specifications Architectural Art Glass

Provide architectural art glass as manufactured by Joel Berman Glass Studios 1-1244 Cartwright St. Vancouver, B.C. Canada V6H 3R8 604-684-8332 in size and type indicated on the drawings.

- .1 The glass texture, color and finish details shall be in accordance with JBGS Documentation provided to architect/designer by Joel Berman Glass Studios Representative.
- .2 Glass thickness shall be not less than 1/4" (6mm) and not more than 3/4" (19mm). Finished width and height tolerance shall be +/-1/8" (+/-3.2mm)
- .3 Maximum glass panel size not to exceed 53" (1345mm) x 108" (2743mm) (Unless predetermined).
- .4 Maximum glass panel weight not to exceed 250 lb.

End of Section



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Section 08800 – Glass and Glazing (Page 1)

1 GENERAL

1.1 REQUIREMENTS INCLUDED

.1 Section Includes: Supply (& Installation) of architectural art glass and glazing accessories where indicated on the Drawings, and as specified herein, for a complete and proper installation.

1.2 RELATED REQUIREMENTS

Edit the following to include only sections which are used on the project and which relate to the work of this section. Relevant sections may include the following:

- .1 Section 07800: Skylights
- .2 Section 07900: Sealants and Caulking
- .3 Section 08100: Metal Doors and Frames
- .4 Section 08300: Special Doors
- .5 Section 08400: Entrances and Storefronts
- .6 Section 08500: Aluminum Window Wall
- .7 Section 08520: Aluminum Windows and Doors
- .8 Section 08810: Glass
- .9 Section 08900: Glazed Curtain Walls

1.3 REFERENCE STANDARDS

- .1 Reference standards refer to the latest edition.
 - .1 CAN/CGSB References:
 - .1 CAN/CGSB-12.1, Tempered or Laminated Safety Glass
 - .2 CAN/CGSB-12.2, Flat, Clear Sheet Glass
 - .3 CAN/CGSB-12.3, Flat, Clear Float Glass
 - .4 CAN/CGSB-12.8, Insulating Glass Units
 - .5 CAN/CGSB-12.13, Glass, Patterned
 - .2 American National Standards Institute:
 - .1 ANSI Z97.1- Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings.
 - .3 American Society for Testing and Materials:
 - .1 ASTM C162 - Terminology of Glass and Glass Products.
 - .2 ASTM C864 - Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers.
 - .3 ASTM C920 - Specification for Elastomeric Joint Sealants.
 - .4 ASTM C1036 - Specification for Flat Glass
 - .5 ASTM C1048 - Specification for Heat-treated Flat Glass Kind HS, Kind FT Coated and Uncoated Glass.
 - .6 ASTM C1172 - Specification for Laminated Architectural Flat Glass
 - .4 Glass Association of North America:
 - .1 FGMA Glazing Manual
 - .2 FGMA Sealant Manual
 - .3 LSGA Design Guide

1.4 QUALITY ASSURANCE

- .1 Work shall be performed in accordance with the designated standards and or references specified herein and all current addenda, parts or revisions.
- .2 Products, materials, equipment, installation, and/or systems shall be provided and installed in full compliance with the specified standards or references and the codes, rules or regulations governing it.
- .3 The work of this section must be installed and adjusted by experienced workers.
- .4 Installer Qualifications: Company experienced in performing the work of this section and in installing architectural glass with a minimum of five (5) years documented experience and approved by the manufacturer.
- .5 Installer shall be responsible for the complete installation of glass and glazing supplied by Joel Berman Glass Studios (JBGS).
- .6 Tolerances: Finished glass width and height dimensional tolerance shall be +/-1/8".

1.5 MOCK-UPS

JBGS highly recommends that a prototype mock-up be specified for custom designs. Use the following paragraph if a mock-up is desired:

- .1 Mock-ups: Provide a full-size mockup of the architectural art glass for review.

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1.6 SUBMITTALS

- .1 Refer to General Requirements Section 01300 – Submittals.
- .2 Product Data:
 - .1 Submit material list of items proposed to be provided.
- .3 Approval Documents:
 - .1 Submit three (3) copies of Shop Drawings or approval summary confirming final dimensions and fabrication details of glass.

Use the following paragraph when custom artwork, logo, or graphic image is being specified:

- .2 Following a submittal by Owner or Architect of digital artwork, submit final proof drawings to the Architect for approval.

Use the following paragraph for submittal of samples when the type, texture, and colors have been selected and specified in the contract documents:

- .4 Glass Samples: Submit two 5" x 5" (unless otherwise requested) samples of each thickness and pattern of glass specified. Color samples shall be provided on 4" x 4" (unless otherwise requested).

1.7 DELIVERY, STORAGE, AND HANDLING

- .1 Comply with the pertinent parts of General Requirements Section 01600 - Material and Equipment for environmental conditions affecting products on site.
- .2 Follow proper glass handling and storage recommendations of referenced Standards and any special instructions from the architectural glass manufacturer.

1.8 ENVIRONMENTAL REQUIREMENTS

- .1 Apply glazing sealants only when ambient temperature is at least 50°F (10°C).
- .2 Respect minimum ambient temperature requirement for 24hrs after application of glazing sealants.

1.9 JOB CONDITIONS

- .1 Start no work until conditions are satisfactory. Commencement of work shall imply acceptance of conditions.

1.10 WARRANTY

Product Warranty is available subject to pre-approval by manufacture based on material location and application.

- .1 Provide installation warranty (labor and related materials) for one (1) year from the date of Substantial Performance of the Work.

2 PRODUCTS

2.1 MANUFACTURER

- .1 Architectural art glass shall be textured, kiln cast, coated or sandblasted. Acceptable manufacturers are: Joel Berman Glass Studios , Granville Island, 1-1244 Cartwright St. Vancouver, B.C. 604-684-8332

2.2 GLASS MATERIALS

The following paragraph provides a generic description of JBGS textured glass for use where legal considerations preclude a proprietary product name:

- .1 Textured architectural art glass should consist of float glass cast on custom ceramic mold. Casting process must return glass to its original factory annealed state so that further processing can be done (ie. Tempering, drilling, edging), if required. Glass thickness should be as specified no less than 1/4" and no greater than 3/4". Maximum panel size not to exceed 53" x 108" (unless predetermined), panel weight not to exceed 250lbs. All edges to be kiln polished, unless otherwise indicated.
- .2 Coated Architectural art glass shall receive polyurethane base coating applied under controlled environmental conditions. Colors as specified from manufacturer standard colors or custom colors available. Finish to be transparent, frost, opaque or Sfumato.
- .3 Sandblasted Architectural art glass should be frosted to a uniform speckle of 10, 20, 50, 100% translucency. Images or graphics may be sandblast carved to a maximum 1/8" deep.

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- .4 All Architectural art glass should be able to be drilled, edged, tempered and laminated if required.

2.3 TEXTURES

- .1 Texture shall be in accordance with Joel Berman Glass Studios Documentation provided to architect/designer by Joel Berman Glass Studios Representative.

2.4 GLAZING ACCESSORIES

Use the following paragraph for a wet sealant system (specify silicone accessories for silicone based sealant):

- .1 Sealant: [Comply with section 07920.] Non-coated glass sealant: DOW 799; or approved alternate; Coated glass sealant DOW 1199 or approved alternate.
- .2 Setting Blocks: Neoprene or silicone meeting ASTM C864 and compatible with the sealant(s) used; 80-90 Shore A Durometer hardness; length 0.100" for each square foot of glass area (27mm per m²), or minimum 6" (152 mm), by the width of the glazing channel minus 1/16"(1.6mm) by height to suit the glazing method.
- .3 Spacers: neoprene or silicone meeting ASTM C864 and compatible with the

sealant(s) used; 50-60 Shore A Durometer hardness; minimum 3" (76mm) Long by one-half the height of the glazing channel by thickness to suit the application.

- .4 Glazing Tape: Preformed butyl-polyisobutylene compound; 10-15 Shore A Durometer hardness; color as specified by designer; size as required to set glass properly; coiled on release paper.

- .5 Compressible Filler Rod: Closed-cell or water proof-jacketed rod stock of synthetic rubber or plastic foam compatible with sealant(s) used, flexible and resilient, with 5 to 10 p pound per square inch compressive strength at 25% deflection. Do not use vinyl foam stock.

- .6 Cleaner, Primer and Sealer: Types recommended by sealant or gasket Manufacturer.

- .7 Other Materials: Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to approval by the Architect or Interior Designer.

2.5 GLASS FABRICATION

- .1 Edgework: provide glass with [Kiln polished], [arrised, (seamed)], [flat ground] or [flat polished] edges as specified.
- .2 Cut and drill glass in accordance with approved shop drawings and as required for hardware and accessories attached to glass.
- .3 Temper glass in accordance with ANSI Z97.1 or CAN/CGSB-12.1 latest edition.
- .4 Laminate glass in accordance with ANSI Z971.1 or CAN/CDSB 12.1 latest edition.

3 EXECUTION

3.1 EXAMINATION

- .1 Examine the areas and the conditions under which work of this section will be performed noting other underlying work for defects and discrepancies which might impair the work of this section. Report any unsatisfactory conditions in writing to [Owner] [Superintendent] [General Contractor]. Start no work until conditions are satisfactory. Verify that glazing openings are correctly dimensioned and within tolerances. Before proceeding, correct or cause-to-be-corrected conditions detrimental to proper and timely completion of work.

3.2 PREPARATION

- .1 Clean all obstructions and deleterious substances which might interfere with the glazing and sealant system from glazing channels, stops and rabbets.
- .2 Remove any protective coatings which might fail in adhesion or interfere with the sealant bond.
- .3 Comply with manufactures instructions for final wiping of surfaces immediately before applying primer and glazing sealant or tapes.

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3.3 INSTALLATION

- .1 Inspect each lite of glass immediately before installation.
 - .1 Do not install any items improperly sized, with damaged edges, with scratched or abraded surfaces, or the like.
 - .2 Do not remove manufacture's labels from the glass until so directed by the Architect or Interior Designer.
- .2 Locate setting blocks of appropriate width and thickness at sill quarter points of each lite (unless recommended otherwise by manufacturer or supplier).
 - .1 Use blocks of proper durometer, size, and thickness to support the glass.
 - .2 Provide glass bite, face and edge clearances according to applicable codes and manufacturer recommendations
- .3 Set glass in compliance with installation guidelines and as detailed on the Drawings.

- .4 Special requirements for Coated Glass:
 - .1 Use only compatible sealants such as Dow Corning #1199 or GESilPruf SCS2000.
 - .2 Do not use mirror mastics, construction adhesives, and double-faced tapes.
 - .3 Do not use petroleum-based thinners for cleaning.
 - .4 Do not adhere painted surfaces directly to substrate backers .
 - .5 During installation, use care to ensure hands and gloves are clean and free of sealant residue or petroleum based thinners.

3.4 CLEANING

- .1 At completion of glazing of each unit, surplus compounds shall be removed from all adjacent surfaces and glazing sections.
- .2 Glazing compounds shall be applied within the temperature ranges designated by the manufacturer.
- .3 Clean all glass on completion of the work. Use soft lint-free cloth (Do not use coarse brown paper towels), and a non-abrasive, non-caustic glass cleaner (Diluted Clear-Vu or water and mild alkaline soap. Do not use acidic or strong alkaline solutions).
- .4 Spray the cloth with cleaning solution, DO NOT SPRAY THE GLASS DIRECTLY. Dab the cloth softly on the glass surface to remove dust and lint. For more heavily soiled areas, use a light circular motion to remove dirt.

3.5 PROTECTION

- .1 Protect glass from breakage after installation by promptly installing streamers or ribbons, suitably attached to the surround and held away from the glass. Do not apply directly to the glass except as specifically directed by the Architect or Interior Designer.

End of Section