# SECTION 08 80 00

# GLAZING

## PART 1 – GENERAL

1.1 PURPOSE

A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

**1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS**

**A. Glazing to match existing at the Commons (new dining hall). Refer to Part 4 – Appendix for additional information.**

1.3 SECTION INCLUDES

A. Glass for storefront, exterior and interior.
B. Entrances and other doors.
C. Vision lites.
D. Plastic glazing film.
E. Glazing compounds and accessories.

1.4 RELATED REQUIREMENTS

A. Section 07 90 05 – Joint Sealers: Sealant and back-up material.
B. Section 08 11 13 – Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.
C. Section 08 42 29 – Automatic Entrances: Glazing furnished as part of door assembly.
D. Section 08 43 13 – Aluminum-Framed Storefronts: Glazing furnished by storefront manufacturer.
E. Section 08 44 13 – Glazed Aluminum Curtain Walls.

1.5 REFERENCE STANDARDS

A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; current edition.
B. ASCE 7 - Minimum Design Loads for Buildings and Other Structures; current edition.
C. ASTM C864 - Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers; current edition.
D. ASTM C1036 - Standard Specification for Flat Glass; current edition.
E. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; current edition.
F. ASTM C1172 - Standard Specification for Laminated Architectural Flat Glass; current edition.
G. ASTM C1193 - Standard Guide for Use of Joint Sealants; current edition.
H. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings; current edition.
I. ASTM E2190 - Standard Specification for Insulating Glass Unit Performance and Evaluation; current edition.
J. GANA (SM) - GANA Sealant Manual; current edition.

1.6 SUBMITTALS

A. See Division 01 for submittal procedures.
B. Product Data on Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
C. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
D. Samples: Submit two samples 12 x 12 inch in size of glass units, showing coloration and design.
E. Certificates: Certify that products meet or exceed specified requirements.
F. Manufacturer's Certificate: Certify that sealed insulated glass meets or exceeds specified requirements.

1.7 QUALITY ASSURANCE

A. Perform Work in accordance with GANA Glazing Manual and FGMA Sealant Manual for glazing installation

methods.

B. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.

1.8 MOCK-UP

A. Provide mock-up of aluminum curtain wall including glass and air barrier and vapor retarder seal.
B. Locate where directed by Architect.
C. Mock-up may not remain as part of the Work.

1.9 FIELD CONDITIONS

A. Do not install glazing when ambient temperature is less than 50 degrees F.
B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.10 WARRANTY

A. See Division 01 for additional warranty requirements.
B. Sealed Insulating Glass Units: Provide a ten (10) year warranty to include coverage for seal failure, interpane dusting or misting, including replacement of failed units.

**PART 2 – PRODUCTS**

2.1 GLAZING TYPES

A. Type GL-1: Tempered Safety Glass: Vision glazing.
   1. Application: All Interior glazing, unless otherwise indicated.
   2. Glass Tint: Clear.
   3. Thickness: 1/4 inch.
B. Type GL-2: Sealed Insulating Glass Units: Vision glazing.
   1. Application: Entry vestibules.
   2. Outboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
      a. Tint: Clear, Vitro.
      b. Coating: Low-E type, on #2 surface,
   3. Inboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
      a. Tint: Clear Vitro.
   4. Total Thickness: 1 inch.
   5. Visible Light Transmittance: 51.
   6. Light to Solar Gain: 2.22.
   7. Total Solar Heat Gain Coefficient: 0.23.
   8. Shading Coefficient: 0.24.
   9. Glazing Method: Gasket glazing.
   10. Spacer: Black.
   11. Basis of Design: Vitro, Solarban 90 (2) Clear + Clear Glass Insulating Glass Unit.
C. Type GL-3: Sealed Insulating Glass Units:
   1. Application(s): All exterior glazing, unless otherwise indicated.
   2. Outboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
      a. Tint: Optiblue, Vitro.
      b. Coating: Low-E type, on #2 surface.
   3. Inboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
      c. Tint: Clear, Vitro.
   4. Spacer: 1/2 inch.
   5. Total Thickness: 1 inch.
   6. Visible Light Transmittance: 37.
   7. Light to Solar Gain: 1.85.
   8. Total Solar Heat Gain Coefficient: 0.20.
   9. Shading Coefficient: 0.24.
   10. Glazing Method: Gasket glazing.
   11. Basis of Design: Vitro, Solarban 90 (2) Optiblue + Clear Glass Insulating Glass Unit.
D. Type GL-4: Sealed Insulating Glass Units - Spandrels:
   1. Application(s): All exterior glazing, unless otherwise indicated.

2. Outboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
    d. Tint: Optiblue, Vitro.
    e. Coating: Low-E type, on #2 surface.
3. Inboard Lite: Tempered safety glass, 1/4 inch thick, minimum.
    f. Tint: 100% Gray Frit on Clear, Vitro, on #4 surface.
4. Spacer: 1/2 inch.
5. Total Thickness: 1 inch.
6. Visible Light Transmittance: 2.
7. Light to Solar Gain: 0.13.
8. Total Solar Heat Gain Coefficient: 0.16.
9. Shading Coefficient: 0.18.
10. Glazing Method: Gasket glazing.
    a. Basis of Design: Vitro, Solarban 90 (2) Optiblue + (4) 100% Gray Frit on Clear Glass Insulating Glass Unit.

2.2 EXTERIOR GLAZING ASSEMBLIES

A. Performance Criteria: Select type and thickness of glass to withstand dead and live loads caused by positive and negative wind pressure acting normal to plane of glass.
    1. Design Pressure: Calculated in accordance with ASCE 7.
    2. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
    3. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
    4. Use the procedure specified in ASTM E1300 to determine glass type and thickness.
    5. Limit glass deflection to 1/200 or flexure limit of glass, whichever is less, with full recovery of glazing materials.
    6. Glass thicknesses listed are minimum.
B. Air and Vapor Seals: Provide completed assemblies that maintain continuity of building enclosure vapor retarder and air barrier:
    1. In conjunction with vapor retarder and joint sealer materials described in other sections.
    2. To maintain a continuous air barrier and vapor retarder throughout the glazed assembly from glass pane to heel bead of glazing sealant.

2.3 GLASS MATERIALS

A. Float Glass: Provide float glass based glazing unless noted otherwise.
    1. Annealed Type: ASTM C1036, Type I - Transparent Flat, Class 1 - Clear, Quality-Q3.
    2. Heat-Strengthened and Fully Tempered Types: ASTM C1048, Kind HS and Kind FT.
    3. Tinted Types: ASTM C1036, Class 2 - Tinted, color and performance characteristics as indicated.
    4. Thicknesses: As indicated; for exterior glazing comply with requirements indicated for wind load design regardless of thickness indicated.
B. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
    1. Laminated Safety Glass: Comply with 16 CFR 1201 test requirements for Category II.
    2. Plastic Interlayer:
        a. Ionoplast Interlayer: 0.035 inch thick, minimum.
    3. Manufacturers:
        a. Vitro Architectural Glass: www.vitro.com.
        b. Substitutions: Refer to Division 01.

2.4 SEALED INSULATING GLASS UNITS

A. Sealed Insulating Glass Units: Types as indicated.
    1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
    2. Edge Spacers: Aluminum, bent and soldered corners.
    3. Edge Seal: Glass to elastomer with supplementary silicone sealant.
    4. Edge Seal Color: Black.
    5. Purge interpane space with dry hermetic air.

2.5 PLASTIC FILMS

A. Manufacturers:
   1. 3M Window Film: www.3m.com/US/arch_construct/scpd/windowfilm.
      a. 3M Fasara, Glace #SH2MAGL
      b. 3M Crystal, Dusted #7725SE-314
   2. Substitutions: Refer to Division 01.

2.6 GLAZING ACCESSORIES

A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness; ASTM C864 Option II. Length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.
B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Minimum 3 inch long x one half the height of the glazing stop x thickness to suit application, self-adhesive on one face.
C. Glazing Tape: Closed cell polyvinyl chloride foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume of 2 percent, designed for compression of 25 percent to effect an air barrier and vapor retarder seal.
   1. Manufacturers:
      a. Pecora Corporation.
      b. Saint-Gobain Performance Plastics.
      c. Substitutions: Refer to Division 01.
D. Glazing Gaskets: Resilient silicone extruded shape to suit glazing channel retaining slot, ASTM C 864 Option I; ASTM C864 Option II; black color.

**PART 3 – EXECUTION**

3.1 EXAMINATION

A. Verify that openings for glazing are correctly sized and within tolerance.
B. 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

A. Clean contact surfaces with solvent and wipe dry.
B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
C. Prime surfaces scheduled to receive sealant.
D. Install sealants in accordance with ASTM C1193 and GANA Sealant Manual.
E. Install sealants in accordance with manufacturer's instructions.

3.3 INSTALLATION - EXTERIOR/INTERIOR DRY METHOD (GASKET GLAZING)

A. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.
B. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
C. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.4 INSTALLATION - INTERIOR DRY METHOD (TAPE AND TAPE)

A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.
B. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.
C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
D. Place glazing tape on free perimeter of glazing in same manner described above.
E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
F. Knife trim protruding tape.

3.5 INSTALLATION - PLASTIC FILM

A. Install plastic film with adhesive, applied in accordance with film manufacturer's instructions.
B. Place without air bubbles, creases or visible distortion.
C. Fit tight to glass perimeter with razor cut edge.

3.6 FIELD QUALITY CONTROL

A. Glass and Glazing product manufacturers to provide field surveillance of the installation of their products.

B. Monitor and report installation procedures and unacceptable conditions.

3.7 CLEANING

A. Remove glazing materials from finish surfaces.
B. Remove labels after Work is complete.
C. Clean glass and adjacent surfaces.

3.8 PROTECTION

A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.

**PART 4 – APPENDIX**

4.1 PRODUCT DATA / CUT SHEETS

A. Vitro Architectural Glass, Solarban 90 (2) product data.
B. Vitro Architectural Glass, Solarban 90 (2) Clear + Clear Glass Insulating Glass Unit submittal label.
C. Vitro Architectural Glass, Solarban 90 (2) Optiblue + Clear Glass Insulating Glass Unit submittal label.
D. Vitro Architectural Glass, Solarban 90 (2) Optiblue + Clear 100% Frit Warm Gray Glass Insulating Glass Unit submittal label.
E. 3M Fasara, Glace #SH2MAGL product data
F. 3M Crystal, Dusted #7725SE-314 product data

END OF SECTION

# Product Data Sheet

SOLARBAN®90
Solar Control Low-E Glass

## Aesthetic Description

The latest evolution in solar control low-e glass, *Solarban*® 90 glass combines major advances in coating technology with the aesthetic appeal of clear glass.

Developed with input from architects, *Solarban*® 90 glass conveys a true neutral appearance similar to that of clear glass in both color and reflectance, whether viewed from the interior or exterior of a building. The advanced solar control low-e coating manages the light spectrum to balance visible light transmittance and help manage glare, while providing exceptional solar performance.

As with other *Solarban*® low-e coated glasses, *Solarban*® 90 glass has the versatility to be paired with clear, *Starphire* Ultra Clear™ or an array of performance-tinted glasses to provide a broad range of aesthetic and performance options. In any configuration, the neutral nature of *Solarban*® 90 glass harmonizes well with other building materials to support the architect's design vision.

## Performance Characteristics

Combining advanced coating technology with refinements to Vitro Architectural Glass' (formerly PPG glass) proven triple-silver coating technology, *Solarban*® 90 glass is engineered to outperform *Solarban*® 70XL glass, the most preferred high-performance solar control low-e glass in North America.

When paired with clear glass in a standard one-inch insulating glass unit (IGU), *Solarban*® 90 glass offers a Solar Heat Gain Coefficient (SHGC) of 0.23, an improvement of 15 percent compared to *Solarban*® 70XL glass. The same pairing yields a Visible Light Transmittance (VLT) of 51 percent, which fits well within the ideal range of most commercial glazing applications, along with an exceptional Light to Solar Gain (LSG) ratio of 2.22.

Due to its exceptional solar control performance, *Solarban*® 90 glass enables architects to specify larger expanses of glass to connect people to the outdoor environment. *Solarban*® 90 glass also facilitates the use of smaller HVAC systems to reduce cooling costs, while minimizing artificial lighting requirements and the need for external shading devices.

## Comparison Chart

| Product* | VLT | SHGC | LSG Ratio | Exterior Reflectance |
|---|---|---|---|---|
| *Solarban*® 90 Glass | **51%** | 0.23 | 2.22 | 12% |
| *Solarban*® 70XL Glass | 64% | 0.27 | 2.37 | 12% |

*performance data based on a 1-inch IGU with clear glass

cradle to cradle CERTIFIED™

Vitro®

## Fabrication and Availability

*Solarban*® 90 glass is available exclusively through the *Vitro Certified*™ Network. *Vitro Certified*™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. *Solarban*® 90 glass is manufactured using the magnetron sputtering vacuum deposition (MSVD) process and is available heat-strengthened and tempered.

## Additional Resources

*Solarban*® 90 glass is *Cradle to Cradle Certified*™. For more information or to obtain samples of any Vitro Glass product, call **1-855-VTRO-GLS (887-6457)** or visit **vitroglazings.com**.

Vitro Architectural Glass is the first U.S. float glass manufacturer to have its products recognized by the *Cradle to Cradle Certified*™ program, and offers more C2C-certified architectural glasses than any other float glass manufacturer.

Developed with input from architects, *Solarban*® 90 glass conveys a true neutral appearance similar in color and reflectance to clear glass from both inside and outside the building.

**Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites**

| Glass Type: Outdoor Lite: Coating if Any (Surface) Glass + Indoor Lite: Coating if Any (Surface) Glass | Visible Light Transmittance (VLT) | Visible Light Reflectance | | (BTU/hr°ft²°°F) NFRC U-Value | | Solar Heat Gain Coefficient (SHGC) | Light to Solar Gain (LSG) |
|---|---|---|---|---|---|---|---|
| | | Exterior % | Interior % | Winter Nighttime | Winter Argon | | |
| ***Solarban*® 90 Solar Control Low-E Glass** | | | | | | | |
| *Solarban*® 90 (2) Clear + Clear | 51 | 12 | 19 | 0.29 | 0.24 | 0.23 | 2.22 |
| *Solarban*® 90 (2) *Starphire*® + *Starphire*® | 54 | 13 | 20 | 0.29 | 0.24 | 0.23 | 2.35 |
| *Solarban*® 90 (2) *Solexia*® + Clear | 44 | 10 | 19 | 0.29 | 0.24 | 0.22 | 2.00 |
| *Solarban*® 90 (2) *Atlantica*® + Clear | 39 | 9 | 19 | 0.29 | 0.24 | 0.20 | 1.95 |
| *Solarban*® 90 (2) *Azuria*® + Clear | 39 | 9 | 19 | 0.29 | 0.24 | 0.21 | 1.86 |
| *Solarban*® 90 (2) *Optiblue*® + Clear | 37 | 8 | 19 | 0.29 | 0.24 | 0.20 | 1.85 |
| *Solarban*® 90 (2) *Solarblue*® + Clear | 32 | 8 | 18 | 0.29 | 0.24 | 0.19 | 1.68 |
| *Solarban*® 90 (2) *Pacifica*® + Clear | 24 | 6 | 18 | 0.29 | 0.24 | 0.17 | 1.41 |
| *Solarban*® 90 (2) *Solarbronze*® + Clear | 31 | 7 | 18 | 0.29 | 0.24 | 0.18 | 1.72 |
| *Solarban*® 90 (2) *Optigray*® + Clear | 36 | 8 | 19 | 0.29 | 0.24 | 0.20 | 1.80 |
| *Solarban*® 90 (2) *Solargray*® + Clear | 26 | 6 | 18 | 0.29 | 0.24 | 0.17 | 1.53 |
| *Solexia*® + *Solarban*® 90 (3) Clear | 44 | 16 | 12 | 0.29 | 0.24 | 0.30 | 1.47 |
| *Atlantica*® + *Solarban*® 90 (3) Clear | 39 | 13 | 12 | 0.29 | 0.24 | 0.26 | 1.50 |
| *Azuria*® + *Solarban*® 90 (3) Clear | 39 | 13 | 12 | 0.29 | 0.24 | 0.27 | 1.44 |
| *Solarblue*® + *Solarban*® 90 (3) Clear | 32 | 10 | 11 | 0.29 | 0.24 | 0.25 | 1.28 |
| *Pacifica*® + *Solarban*® 90 (3) Clear | 24 | 8 | 11 | 0.29 | 0.24 | 0.21 | 1.14 |
| *Solarbronze*® + *Solarban*® 90 (3) Clear | 30 | 10 | 11 | 0.29 | 0.24 | 0.24 | 1.25 |
| *Optigray*® + *Solarban*® 90 (3) Clear | 36 | 12 | 11 | 0.29 | 0.24 | 0.27 | 1.33 |
| *Solargray*® + *Solarban*® 90 (3) Clear | 25 | 8 | 11 | 0.29 | 0.24 | 0.22 | 1.14 |
| *Graylite*® II + *Solarban*® 90 (3) Clear | 5 | 4 | 11 | 0.29 | 0.24 | 0.11 | 0.45 |

All performance data calculated using LBNL Window 7.3 software, except European u-value, which is calculated using WinDat version 3.0.1 software.
For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit vitroglazings.com or request our Architectural Glass Catalog.

For more information about *Solarban*® low-e glass and other *Cradle to Cradle Certified*™ architectural glasses by Vitro Glass, visit **vitroglazings.com**, or call **1-855-VTRO-GLS (887-6457).**

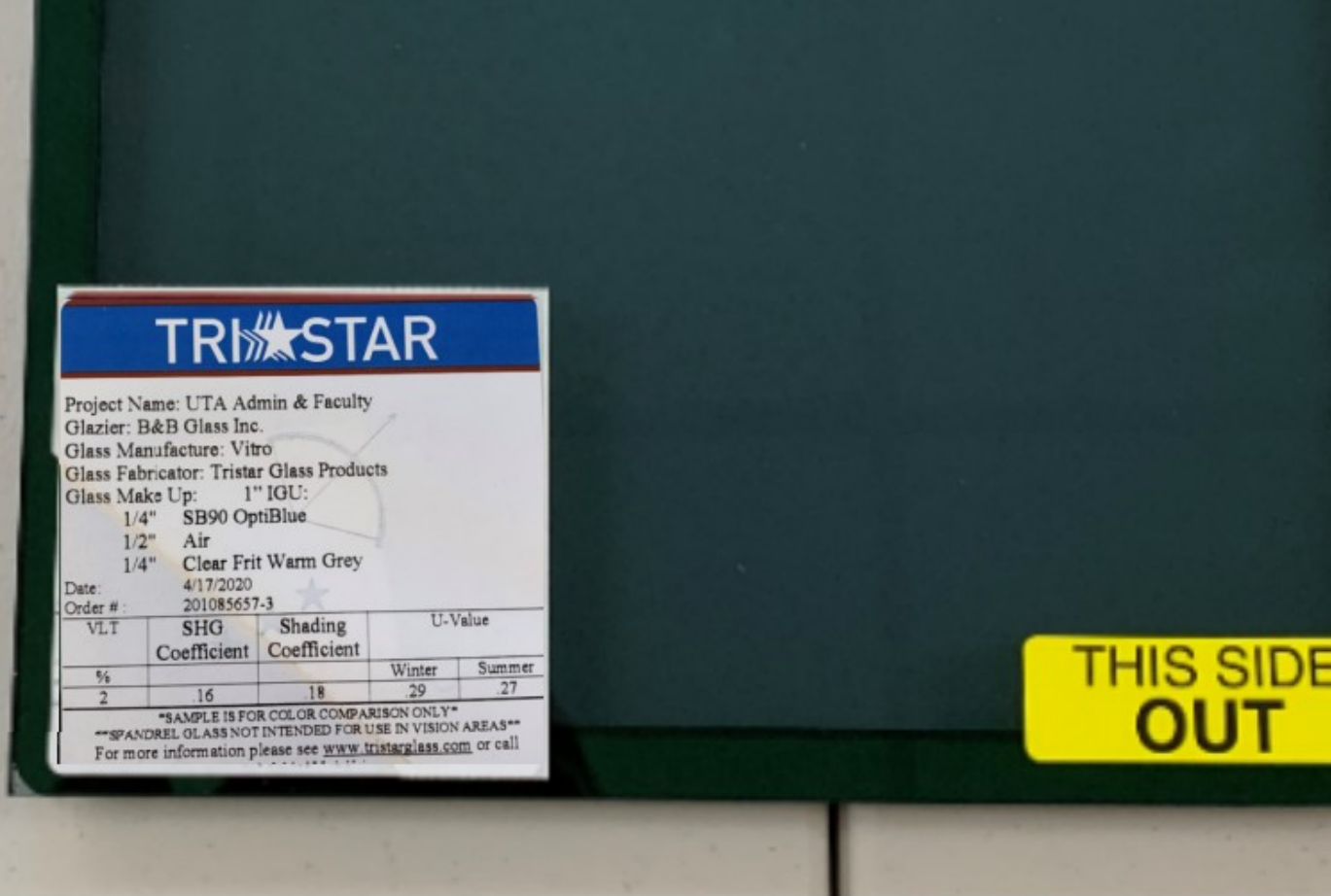

Printed in the USA 02/06/17 (7166)

***SOLARBAN*® 90 (2) Clear + Clear Glass Insulating Glass Unit** S-47 2/17

| VLT | Exterior Reflect-ance | Interior Reflect-ance | U-Value Imperial (Winter) | | SHGC | LSG |
|---|---|---|---|---|---|---|
| | | | Air | Argon | | |
| 51% | 12% | 19% | 0.29 | 0.24 | 0.23 | 2.22 |

***SOLARBAN***® 90 (2) ***OPTIBLUE***® + Clear Glass Insulating Glass Unit S-52 2/17

| VLT | Exterior Reflect-ance | Interior Reflect-ance | U-Value Imperial (Winter) | | SHGC | LSG |
|---|---|---|---|---|---|---|
| | | | Air | Argon | | |
| 37% | 8% | 19% | 0.29 | 0.24 | 0.20 | 1.85 |


TRISTAR
Project Name: UTA Admin & Faculty
Glazier: B&B Glass Inc.
Glass Manufacture: Vitro
Glass Fabricator: Tristar Glass Products
Glass Make Up: 1" IGU:
1/4" SB90 OptiBlue
1/2" Air
1/4" Clear Frit Warm Grey
Date: 4/17/2020
Order #: 201085657-3
VLT
SHG Coefficient
Shading Coefficient
U-Value
Winter
Summer
%
2
.16
.18
.29
.27
*SAMPLE IS FOR COLOR COMPARISON ONLY*
**SPANDREL GLASS NOT INTENDED FOR USE IN VISION AREAS**
For more information please see www.tristarglass.com or call
THIS SIDE
OUT

# 3M™ Fasara™ Glass Finishes Glace (SH2MAGL)

## Specification Sheet

Release A, Effective August 2013

## Product Description

3M™ Fasara™ Glass Finishes – Glace (the "Film" or “Product”) is a decorative glass and window film that can be used to control both light and privacy through a building’s interior glass.

### Specifications

| | |
|---|---|
| Product Code | SH2MAGL |
| Product Family | Frost/Mat |
| Film Type | Polyester |
| Adhesive Type | Pressure-sensitive |
| Usage | Interior |
| Width | 50 inch (1270mm) |
| Length | 98.4 linear feet (30m) |
| Shading Coefficient (%) | 0.77 |
| Visible Light Reflectance (%) | 18 |
| Visible Light Transmittance (%) | 56 |

## Product Detail

### Manufacturer Detail

3M™ Fasara™ Glass Finishes – Glace is manufactured by the 3M Company.

### UV Resistance

3M™ Fasara™ Glass Finishes – Glace blocks at least 99% of UV light to reduce the discoloring (fading caused by sunlight) of furniture and other items that is mainly caused by UV light.

### Fire Rating

The Product was tested according to ASTM E84 and is classified as Class A as defined in NFPA 101: Life Safety Code®.

## Installation and Warranty

### Installation

To install the Product, refer to the 3M™ Fasara™ Glass Finishes Installation Guide.

### Warranty

For warranty information, refer to the 3M™ Fasara™ Glass Finishes Warranty Document.

## Product Distribution and Contact Information

### Distribution

3M™ Fasara™ Glass Finishes – Glace is available through qualified dealers and distributors.

Samples provided upon request.

### Contact Information

Contact 3M Architectural Markets at 1-888-650-3497, or www.3MArchitecturalMarkets.com.

**3M Architectural Markets**
**3M U.S.**
3M Center
Building 220-7W-07
St. Paul, MN 55144-1000
1-888-650-3497
3MArchitecturalMarkets.com

# 3M™ Crystal™ Glass Finishes Dusted (7725SE-314)

## Specification Sheet

Release A, Effective August 2013

## Product Description

3M™ Crystal™ Glass Finishes – Dusted (the "Product") provides the look of sandblasted glass at a fraction of the cost. Digital printing on this material provides both customization and personalized design options. This permanent, pressure-sensitive film has a transparent synthetic liner for easy cutting of logos or designs. The Product can be applied to glass, acrylic, or polycarbonate substrates.

### Specifications

| | |
|---|---|
| **Product Code** | 7725SE-314 |
| **Brand** | Crystal |
| **Film Type** | Vinyl |
| **Adhesive Type** | Pressure-sensitive |
| **Substrate** | Glass, acrylic, polycarbonate |
| **Usage** | Exterior/Interior |
| **Roll Widths** | 24 in. (610mm),<br>48 in. (1270mm),<br>60 in. (1524mm) |
| **Roll Length** | 50 linear yards (45.72m) |
| **Shading Coefficient (%) *** | 0.93 |
| **Visible Light Reflectance (%) *** | 79 |
| **Visible Light Transmittance (%) *** | 85 |
| **Solar Heat Reflectance (%) *** | 7 |
| **Solar Heat Transmittance (%) *** | 76 |
| **Solar Heat Absorbance (%) *** | 17 |

* As measured on 6mm clear glass.

## Product Detail

### Manufacturer Detail

3M™ Crystal™ Glass Finishes – Dusted is manufactured by the 3M Company.

### Chemical Resistance

3M™ Crystal™ Glass Finishes – Dusted resists mild alkalies, mild acids, and salt. Excellent resistance to water (except immersion).

### Fire Rating

The Product was tested according to ASTM E84 and is classified as Class A as defined in NFPA 101, Life Safety Code®.

## Installation and Warranty

### Installation

To install the Product, refer to the 3M™ Crystal™ Glass Finishes Installation Guide.

### Warranty

For warranty information, refer to the 3M™ Crystal™ Glass Finishes Technical Data Sheet.

## Product Distribution and Contact Information

### Distribution

3M™ Crystal™ Glass Finishes – Dusted is available through approved dealers and distributors.

Samples are provided upon request.

### Contact

Contact 3M Architectural Markets at 1-888-650-3497, or www.3MArchitecturalMarkets.com.

3M Architectural Markets
3M U.S.
3M Center
Building 220-7W-07
St. Paul, MN 55144-1000
1-888-650-3497
3MArchitecturalMarkets.com