

ARCHITECTURAL GUIDE SPECIFICATION  
SECTION 08 81 00 GLASS GLAZING

Note to Specifiers:

The specifications below are suggested as desirable inclusions in glass and glazing specifications (section 08 81 00), but are not intended to be complete. An appropriate and qualified Architect or Engineer must verify suitability of a particular product for use in a particular application as well as review final specifications. Oldcastle BuildingEnvelope® assumes no responsibility or liability for the information included or not included in these specifications.

**PRODUCTS**

**Approved Glass Fabricator** Oldcastle BuildingEnvelope®  
**Glass Description** FLOAT GLASS

1. USA - Annealed float glass shall comply with ASTM C1036, Type I, Class 1 (clear), Class 2 (tinted), Quality-Q3. Canada - Annealed float glass shall comply with CAN/CGSB-12.3-M, Quality-Glazing.

2. USA- Heat-strengthened float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind HS. Canada - Heat-strengthened float glass shall comply with CAN/CGSB-12.9-M, Type 2-Heat-Strengthened Glass, Class A-Float Glass.

3. USA - Tempered float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind FT. Canada - Tempered float glass shall comply with CAN/CGSB-12.1-M, Type 2-Tempered Glass, Class B-Float Glass.

4. USA - Laminated glass to comply with ASTM C1172. Canada - Laminated glass to comply with CAN/CGSB-12.1-M, Type 1-Laminated Glass, Class B-Float Glass.

5. Glass shall be annealed, heat-strengthened or tempered as required by codes, or as required to meet thermal stress and wind loads.

**Sealed Insulating Glass (IG) Vision Glass (Vertical)** GENERAL

1. IG units consist of glass lites separated by a dehydrated airspace that is hermetically dual sealed with a primary seal of polyisobutylene (PIB) and a secondary seal of silicone or an organic sealant depending on the application.

2. USA - Insulating glass units are certified through the Insulating Glass Certification Council (IGCC) to ASTM E2190. Canada - Insulating Glass units are certified through the Insulating Glass Manufacturers Alliance (IGMA) to either the IGMAC certification program to CAN/CGSB-12.8, or through the IGMA program to ASTM E2190.

**IG VISION UNIT PERFORMANCE CHARACTERISTICS**

1. Exterior Lite

1/4" PPG Solarban® 60 on Clear Low-E #2

2. Interior Lite

1/4" Laminated - 1/8" Clear - 0.030" Clear PVB - 1/8" Clear

3. 1/2" Cavity

1/2 inch (Air Fill)

4. Performance Characteristics

Thermal		Optical	
Winter U-factor/U-value:	0.29	Visible Light Transmittance:	70%
Summer U-factor/U-value:	0.27	Visible Light Reflectance (outside):	11%
Solar Heat Gain Coefficient:	0.39	Visible Light Reflectance (inside):	12%
Shading Coefficient:	0.45	Total Solar Transmittance:	33%
Relative Heat Gain (Btu/hr-ft <sup>2</sup> ):	94	Total Solar Reflectance (outside):	28%
Light to Solar Gain:	1.79	Ultraviolet Transmittance:	<1%

Contact Oldcastle BuildingEnvelope® at 866-Oldcastle (653-2278) for samples or additional information concerning performance, strength, deflection, thermal stress or application guidelines. GlasSelect® calculates center of glass performance data using the Lawrence Berkeley National Laboratory (LBNL) Window 7.4 program (version 7.4.8.0) with Environmental Conditions set at NFRC 100-2010. Gas Library ID#1 (Air) is used for Insulating Glass units with air. Gas Library ID#9 (10% Air/90% Argon) is used for Insulating Glass units with argon. Monolithic glass data is from the following sources: 1. LBNL International Glazing Database (IGDB) version 53.0; 2. Vendor supplied spectral data files. Laminated glass data is from the following sources: 1. LBNL International Glazing Database (IGDB) version 53.0; 2. LBNL Optics 6 (version 6.0 Maintenance Pack 1); 3. Vendor supplied spectral data files; 4. Vendor supplied data. 5. Based on vendor testing, clear acid-etched glass performance data is estimated using regular clear glass of equivalent thickness. Thermal values are in Imperial units.