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## PRODUCT DATA SHEET

PRODUCT LINE: GlasPro-HD glass

COLLECTIONS: GlasPro-HD “High Resolution Graphics”

**GlasPro-HD “High Resolution Graphics”** is available in glass or resin. GlasPro employs state-of-the-art equipment and techniques in producing digital graphics and images of uncompromising quality. Our experienced staff specializes in taking ideas from the drawing board to fabrication and is able to assist clients at every stage of project development. If you require a unique visual solution in glass or resin, GlasPro is ready to help. All High Resolution glass and resin is available as transparent, translucent or opaque

**Available Thickness:** GlasPro-HD is available in a wide variety of thicknesses ranging from 1/4” to 2”.

**Max Sizes:** GlasPro-HD is available up to 59x156

**Diffusers:** Transparent, Sea Salt, Fog or Blizzard. Can also be back painted opaque in any color using GlasPro-BP

**Temperable:** Yes

### GlasPro-HD Standards

All GlasPro-HD products meet or exceed the following standards

1. ASTM C 1036 Specification for Flat Glass
2. ASTM C 1172 Specification for Laminated Architectural Flat Glass
3. C1048-04 Heat Treated Flat Glass (if applicable)
4. ANSI Z97.1-2004 Glazing Materials Used in Buildings-Safety performance
5. 16 CFR 1201: Safety Standard for Architectural Glazing Materials

### Exterior and Interior Rated Products

All GlasPro-HD products are rated for Exterior and Interior use and carry a full warranty for either installation. GlasPro-HD panels have a 5 year warranty against color fading.

### UV performance and Color stability

The most important reasons for using pigment inks are archival print life and color stability. The dye inks used in most early inkjet printers exhibited signs of fading or shifts in color after a short period of time (as quickly as days, in some cases if not protected with a UV blocking system). As a result, the graphic art and fine art markets turned to pigment inks. Pigment inks are much more stable and can last more than 200 years under

ideal (museum-quality lighting and framing) conditions, according to testing done by [Wilhelm Imaging Research](#), the leader in this field.

### **The drawbacks of pigment inks**

Pigment inks are generally more expensive than dye inks and they don't have the brightness and broad color range (or gamut) that dye inks have. Another problem that some early pigment inks had was a phenomenon called metamerism, which is essentially the human eye detecting a shift in color when viewing a print under different light sources. For example, an image might look normal under fluorescent light, but exhibit a greenish color cast when viewed outside in bright daylight or under a reading lamp. Metamerism plagued the first generation of pigment inks, but Epson, who pioneered pigment inks as a mainstream technology, worked extensively to reduce this (through more chemistry than I need to know about), and companies like Canon and HP are reaping the benefits of Epson's initial forays into this market.

GlasPro uses the latest generation of pigment inks from Canon. For exterior grade products we also add a UV blocking system. Ultraviolet Radiation (UV) wavelengths range from 280 to 380 nanometers. GlasPro uses a proprietary UV blocking layer between the Glass and the Pigment ink which blocks 99%\*(see note 1) of UV up to 380 nanometers. Therefore almost all damaging UV is stopped before it even reaches the printed interlayer. This UV blocking system along with the use of archival pigments leads to an image that will resist fading for 200 years in an interior environment and 20-40 years in an exterior environment. The range is due to the variable level of exposure to direct sunlight. More direct exposure for longer periods of time will tend towards the lower end of the range. Less direct exposure will tend to resist fading for longer terms.

Note1: For exterior grade GlasPro-HD with exposed edges GlasPro uses a hydrophobic, waterproof interlayer made by "PPG Aerospace Corp." that blocks 90% UV while providing a stable edge condition that provides superior adhesion over PVB interlayer and will not edge delaminate. This product has been used in water features where the edge is exposed to a steady flow of water 24 hours a day, 365 days a year without delamination

### **Sustainability Performance**

#### LEED Category: Energy and Atmosphere

Credit 1: Optimize Energy Performance

LEED Credit: 1-10 points

GlasPro-HD Contribution: GlasPro-HD offers a wide range of interlayers that can contribute significantly to solar heat gain reduction in structural glazing applications. These high-performance interlayers allow architects to specify more glazing in their designs to help meet the requirements for the Energy and Atmosphere category.

#### LEED Category: Materials and Resources

Credit 4: Recycled Content

LEED Credit : 1-2 points

GlasPro-HD Product Data  
GlasPro-HD, as supplied  
to the consumer, may be recycled into secondary  
materials for various markets.

www.glas-pro.com

#### LEED Category: Indoor Environmental Quality

Credit 8: Daylight & Views

LEED Credit : 1-2 points

GlasPro-HD Contribution: Daylight reduces heat gain created by artificial light. GlasPro-HD can contribute to Solar Heat Gain Performance which allows architects to use more glazing in the overall building design without increasing loads on the building's Heating Ventilation and Cooling (HVAC) systems.

#### **Glass Handling and Storage**

Care needs to be taken during handling and glazing to ensure that glass damage does not occur. Do not allow glass edges to contact the frame or any hard surface during installation Refer to the Glass Association of North America (GANA) glazing manual for proper handling instructions.

Improper glass storage may result in damage to glass, glass surfaces or coatings. Store glass crates properly to prevent them from tipping. Also, ensure proper blocking and protection from outside elements.

GlasPro recommends a 5-8° lean against two wide, sturdy uprights, which are capable of withstanding the crate weight.

Once the glass is installed the general contractor or building owner should provide for glass protection and cleaning. Weathering metals, alkaline materials or abrasive cleaners may cause surface damage. Windblown objects, welding sparks or other material that contacts the glass surface during construction may cause irreversible damage.

#### **Maintenance and Cleaning**

To maintain aesthetics, it is important to clean the glass during and after construction. For routine cleaning, use a soft, clean, grit-free cloth and a mild soap, detergent, or window cleaning solution.

Rinse immediately with clean water and remove any excess water from the glass surface with a squeegee. Do not allow any metal or hard parts of the cleaning equipment to contact the glass surface.

#### **Framing Deflections**

Refer to the GANA glazing manual for information on adequate framing systems. You are required to comply with industry standards for framing deflection.

#### **Non-Rectangular Glass Shapes**

GlasPro can cut virtually any shape glass required for your project from CAD files or full size patterns. Full size patterns must be submitted to GlasPro for evaluation. Pattern

GlasPro-HD Product Data  
Charges may apply.

[www.glas-pro.com](http://www.glas-pro.com)

**Warranty Information**

GlasPro-HD products carry a 5 year limited warranty. Contact our order desk for copies of our product warranties.

**GlasPro-HD Inspection Guidelines**

See ASTM C 1172-03

GlasPro-HD products may be used in structural glazed applications. Only “Neutral Cure” Silicones are allowed..