

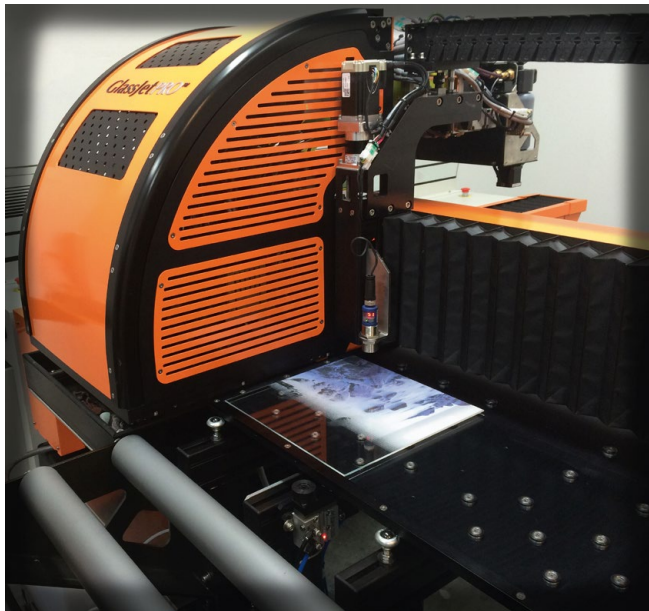
Print Information & Specifications



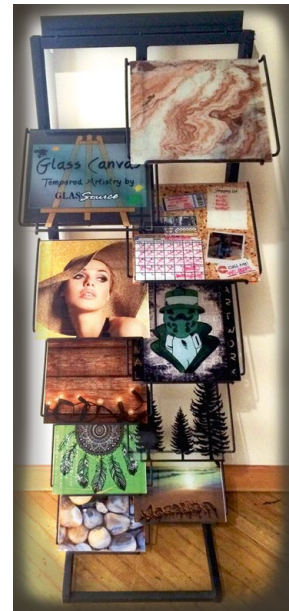
Frit (a ceramic composition) inks are applied directly onto the glass surface, using software to convert digital images into ceramic prints which are then permanently fused to the glass during our in-house tempering process.
Printed glass must be tempered to bond to the glass.

*** Artistic Expression * Architectural Design * Custom Logos, Photos, and More! ***

Ceramic frit is almost as resistant to abrasion & chemicals as the glass itself. Being lead and cadmium free, and having a high mechanical, chemical, and weather resistance makes it ***suitable for a variety of interior and exterior applications.***



The Digital Print Machine During Production



Final Prints on Display

Printing high quality, realistic photographic images & graphic designs allows for countless creative possibilities making the glass canvas more versatile, functional, and innovative than ever!

Min. Size: 12" Diagonal * Max. Size: 69" x 120" * Max. Shipping Size: 60" x 120"

*Note: maximum printed glass size may vary due to fabrication & shipping limitations.
Contact a GLASSource Customer Service Representative to verify capabilities.*

File Formats for Printed Glass

Vector and Raster files are both acceptable formats for processing an image, however it should be noted that the quality of the print depends on the quality of the original file sent over. Images that appear clear may lose quality when resized. Typically, **the higher the resolution the higher the quality of the print**. Artwork provided to GLASSource must be acceptable for commercial use.

Acceptable File Formats for Printing:

- EPS (Encapsulated Post Script)
 - AI (Adobe Illustrator)
 - PDF (Adobe PDF)
- PSD (Adobe Photoshop)
- JPG (High Resolution JPEG)
- TIFF (High Resolution TIFF)
- BMP (Bitmap Image File)
- DXF (Drawing Interchange Format)

Vector Files:

Vector files are line art, defined by mathematical equations that always render at the highest quality. Scalable to any size without losing resolution, the image will stay clean and crisp. Vector files are relatively small and are typically easy to send electronically. **Whenever possible, Vector files are preferred.** Logos are best in Vector format. • AI • EPS • SVG • DXF

Raster Files/ Bitmap Images:

Raster files, or bitmap, are pixel based images; the more pixels in an image, the higher the image quality. Raster files are considered “lossy” meaning that they may lose data and image resolution, becoming blurry and pixelated when enlarged. Raster files can also be large, often requiring the use of a file sharing program in order to submit files. **Raster files are resolution dependent, thus it is recommended that the image has a minimum resolution of 100-300 dpi.** Most Photographs are Raster format. • PSD • JPG/JPEG • TIFF • BMP • PNG • GIF

- **100% scale (full size output) at 100 dpi • 50% scale at 200 dpi or higher**
- **25% scale at 300 dpi or higher • 10% scale at 600-1200 dpi recommended**

Please send all files in an editable format, if possible. Thumbnail sized Raster files will not be high enough resolution and therefore are not suitable for quality prints. If you need an image edited or created, this may be possible for an additional cost (pricing varies depending on time and work necessary for the file creation). Hiring a graphic designer is recommended. A sample is always encouraged to ensure satisfaction.

Printed Glass Standards

- All digitally printed glass projects may be done 1/32" to 1/8" from the edge of the glass in order to prevent contamination and consequential defects resulting from overspray or misalignment.
- Variations in color may occur with any ceramic ink and may be more apparent in white or lighter colors and on different glass types or thicknesses. Due to the limitations of the ceramic ink, certain colors may not be able to be reproduced (such as metallic, neon, purple, magenta or red tones).
- Printed glass should be inspected using NGA Decorated Glass Products recommendations, including inspection at a viewing distance of 39" (for usage ≤ 8') or 10' (for usage > 8').
- We attempt to limit contaminations however some defects may be present and are considered acceptable including, but not limited to, pinholes, fisheyes, color concentrations, streaks from the printing process, and other particles and may be more visible on solid color or lower transparency prints.
- 1/16" variation in dot, hole, or line location is considered acceptable.
- All fabrication (i.e. cutting, edging, drilling, notching, etc.) must be performed prior to printing.
- We can print on any clear or pattern tempered glass; low iron is recommended for the truest colors.
- Frit is compatible with GLASSGUARD™ powered by Diamon-Fusion International for easy cleaning!

***** Please note that our color spectrum differs from that of CMYK or RGB and not all colors can be reproduced and may have a slight color variation than images viewed on-screen or printed on paper. *****



The 6 Ink "Spot" Colors



Image Printed on Paper



Image on Computer Screen



Image Printed on Glass

A sample is always highly recommended. Samples are custom and subject to standard lead times.

Tips for Quality Prints:

- Choose high quality images from reliable sources for the best results.
- Check quality in Photoshop at 100% scale (proportionate to actual size desired).
- Consider the viewing distance for the project; *pixelation or flaws may not be noticeable from a distance.*
- Request a Sample Print if you are unsure of the expected results. Samples are highly encouraged.
- Any images provided to GLASSource by the customer must have permission to be reproduced & must be okay for commercial use. We may ask you to provide documentation for use. Submittal of an image means you are accepting responsibility in making sure use of the image is permitted.



Please contact GLASSource Customer Service or your Sales Representative for more information on our direct digital print process or for a quote/order!