



DIGITAL FRIT

# High Definition Glass

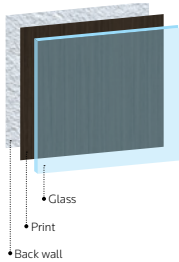
High resolution digitally printed glass is available from Hartung Glass Industries. HD Glass provides a new medium for artistic expression while enabling control over all architectural and decorative glass properties. The versatility of digital printing combined with the durability of ceramic inks makes HD Glass the preferred choice for any artistic glass application.

Glass thickness

5/32"	4mm
3/16"	5mm
1/4"	6mm
5/16"	8mm
3/8"	10mm
1/2"	12mm

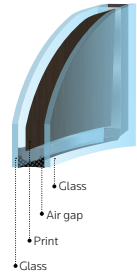
84" x 142.5" Max

500lb Limit



## Monolithic

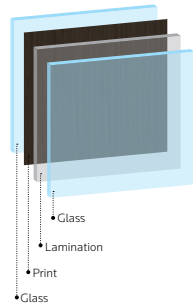
HD glass can be utilized with most monolithic applications. This reduces the extra cost and production for any unnecessary lamination. And it doesn't negatively affect any adhesion required for the job.



## IG Unit

As HD Glass can print on massive lites of glass, which are then tempered and therefore resistant to shattering, HD Glass can undergo further processing for assembly into the IG unit.

\* We have a special ink for printing on the exterior side (side 1) if needed.



## Lamination

During the manufacturing process, but after printing, the printed glass is fixed between two glass sheets. This makes the product ideal for applications requiring stronger glass to meet stringent safety parameters, such as railings, stairs, elevators, and partitions.

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◆ Origami Building  
Paris, France  
Interpane Sicherheitsglas GmbH

# Architecture

**Durability** The proprietary ceramic ink is permanent, scratch resistant and fade-proof color. Frosted satin etch ink is also available.

◆ Chengdu Wanda Exhibition Hall  
Chengdu, Sichuang Providence, China  
South Bright Glass

**Image Tiling** Hartung has the capability to print across an unlimited amount of panels for a full facade layout.

**Double Vision** Images can be layered on a single surface to show different images from either side.

◆ Spectrum Public Art  
Perth, Western Australia  
Cooling Brothers

**Surestep Slip Resistant Ink** For optimal traction control, SureStep stair tread & floors utilize a permanently fused, non-slip ceramic frit which is available in a variety of colors.

◆ Le Semaphore  
Nantes, France  
Macocco Vitrages





◆ St. Luke's Meridian  
Meridian, ID  
Hartung Glass Ind.

# Art

**Digital Printing** Direct to glass with the HD Glass process allows for the unique ability to print with layers of transparency. When coming up with designs, use the glass' transparency to create different interactive layers to both utilize light and the environment that shows through. Let your creativity fly with different opacities and clear sections to really make your design unique.

◆ Alameda Country Water  
Oakland, CA  
Hartung Glass Ind.  
Artist Jane Norling  
Sibila Savage Photography

**Formats** HD Glass can be designed with either vector or rastered artwork. Since most HD Glass is printed large scale, vector is preferred.

Preferred File Specs: Full scale 1:1, 600dpi, RGB, Adobe PDF, .13" bleed, all transparencies built in.  
Acceptable File Specs: Half scale 2:1, 300dpi, RGB, Adobe CS, .06" bleed, transparencies specified.

◆ Fuku Restaurant  
Perth, Australia  
Cooling Brothers

**Color Matching** Digital and premixed color matching is available.

◆ Hotel Eastlund  
Portland, OR  
Hartung Glass Ind.





# Kitchen & Bath

**Cutouts**, holes, notches and/or custom shapes are all fully capable for HD Glass applications.

**Blockout** With layering comes the ability to block flood the image, so any adhesives or wall defects aren't visible through the print image.

◆ Kitchen backsplash

**Kitchen** HD Glass can be utilized for many applications in the kitchen. Backsplashes are the most obvious choices, but it can also be used for cabinets inserts, countertops, or structural cladding.

**Bathrooms** Many areas of the bathroom can utilize HD Glass like the shower enclosure, stall dividers, backsplash, mirror (laminated), floor and/or wall cladding.

◆ Slider doors  
Room dividers

◆ Gridtech shower enclosure  
Simulated divided lite  
Hartung Glass Ind.



# Office

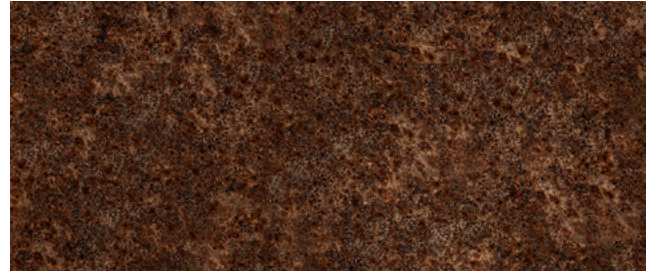
**Transparencies** If you're looking for something more transparent, to merely provide a small amount of privacy, then HD Glass is the solution. Since it is digitally printed, you have full control over how opaque or transparent you want all or just isolated sections of the glass.

**Double Vision** With the ability to layer the image printing, you can have two totally different images viewable from opposing sides of the glass. No matter if it is monolithic, insulated or laminated.

**Applications** From room dividers to desks, HD Glass can be used anywhere glass can, but printed on with any texture or image you want to keep your office fresh, special and completely custom.



Alberta Rock



Ruggine Buio



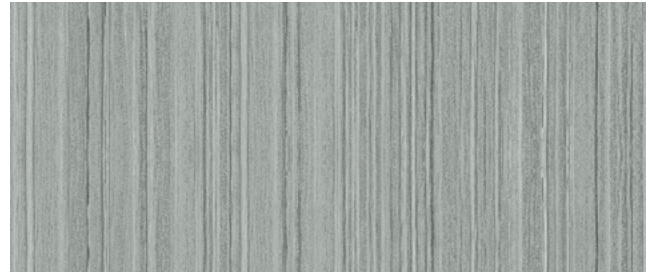
City Lights



Chocolate Oak



Green Lake



Mr Oak

Printed images not limited to swatches shown here.





Washed White Wood



Zebrano Mocachino



Bamboo Horizon



The Clown Chess



Grey Wood Triangle



Arabian Night

Ask about our full texture library.

# HD Glass is powered by Dip-Tech

Dip-Tech digital ceramic printers are the most advanced and versatile glass printing machines; ideal for both external and internal architectural and transportation glass print applications. Fully compatible with Dip-Tech's digital ceramic inks and unique image processing software, these high-tech printers go far beyond the capabilities of traditional screen and UV glass printing; providing you with more flexibility and more quality.



## HD Glass Ceramic Inks

Our ceramic inks are scientifically developed with expert processes; these unique inks are fused into the glass to ensure lasting vibrancy and photo realistic color, and enable higher degrees of quality, design, and functional performance.

24 High Definition Print heads

Image tiling for full facades

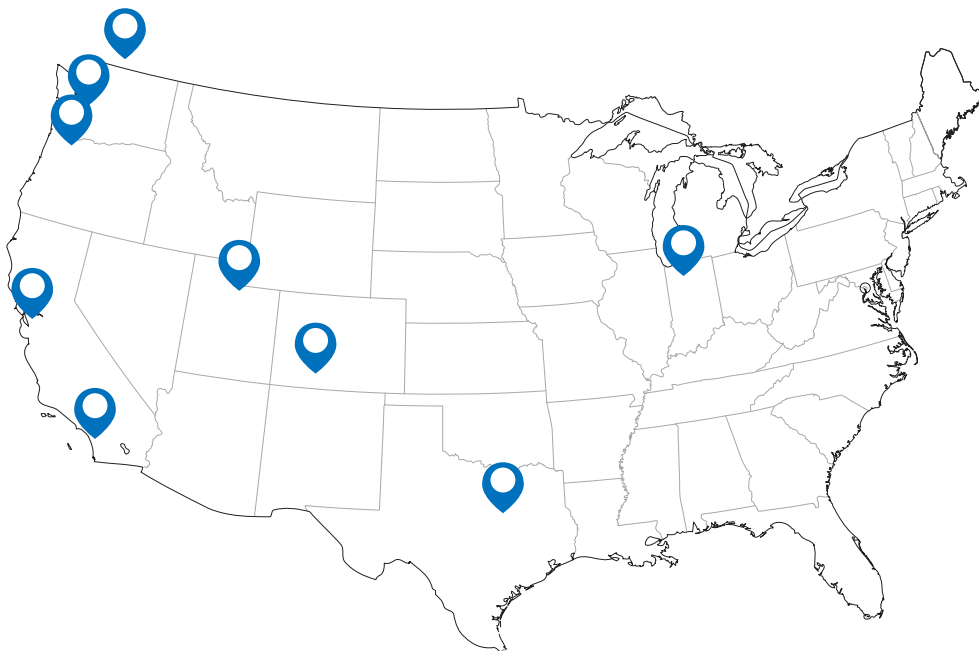
Premixed and digitally mixed inks

Scratch and UV resistant ink

Non toxic ink is fully recyclable

Etch simulation ink

Slip resistance ink





## DIGITAL FRIT

For more information:  
[hartung-glass.com](http://hartung-glass.com)  
[dip-tech.com](http://dip-tech.com)

