

Fabrication Fact

Epoxy/Polyester vs. Frit Ink for Screen Printed Glass Substrates

Frit is a durable, temperature resistant ink that is composed of glass and ceramic particles. The composition of frit helps the adhesion of the ink to the glass, which is tempered onto a substrate at high temperatures, thus making it more abrasion resistant. Epoxy is a cost effective, user friendly ink that can be cured at low temperatures shows good opacity. It is thinner not as durable as frit. However, it can be used on thinner glass, as epoxy does not require tempering to adhere to glass.



Frit ink specs for Abrisa Technologies Screen Printing:

- Color: black and silver standard but custom colors are available
- Resolution: can print as fine as 0.305 mm (0.012")

Thickness requirements :

- Single pass 25 – 60 µm

Epoxy/Polyester ink specs for Abrisa Technologies Screen Printing:

- Color: black and white standard but custom PMS (Pantone Match) colors are
- Resolution: can print as fine as 0.127 mm (0.005") minimum

Thickness requirements:

- Single pass 10 – 12 µm
- Double pass 25 – 60 µm



- Minimum glass substrate thickness to screen print is: 0.28 mm (0.011") and 3mm min. (0.118") for frit
Maximum glass substrate thickness to screen print is: 25.4 mm (1.0")
- Minimum glass substrate dimension to screen print is: 7.6 x 7.6 mm (0.3 x 0.3")
Maximum glass substrate dimension to screen print is: 1828 x 1371 mm (72 x 54")

All screen printing at Abrisa Technologies is

Application Note

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Glass Fabrication



Coating Deposition



CNC Machining



Strengthening - Chemical & Heat



Screen Printing of Graphics



Abrisa Technologies, a member of HEF Photonics, is a globally recognized technology glass fabrication and optical thin film coating company with expertise in high volume manufacturing and engineering capabilities, delivering Total Solutions that provide excellent performance, fitness-for-use and economies of scale.

Our US based, state-of-the-art ISO 9001:2015 and ITAR registered facilities include Abrisa Industrial Glass in Santa Paula, CA and ZC&R Coatings for Optics in Torrance CA. These two divisions produce solutions from cut-to-order coated glass components to custom complex and ready-to-install fabricated, strengthened, optically coated, electronically enabled and branded sub-assemblies.

Our Total Solutions serve a variety of markets including Micro-Electronics, Defense and Avionics, Display, Industrial Automation, Optical Sensors, Imaging, Photonics, Medical & Dental, Life Science and more.



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