

## Technical Information

# 5645 GLASS PASTE

## 450°C Firing

The 5645 glass paste is designed for use as an overglaze or sealing glass. Its low firing temperature makes it ideal for applications which can not accommodate standard 500°C firing glazes. The 5645 is also a composite

glass, providing a stronger film than most low temperature glazes. Its key features include:

- Low Temperature Processing.
- Low Organic Content; Clean Burn-out
- Matched CTE to 96% alumina

### TYPICAL CHARACTERISTICS<sup>(1)</sup>

<b>Paste Color</b>	Green
<b>Fired Color</b>	Green
<b>Firing Temperature</b>	450°C, 30 minutes
<b>Surface Finish</b>	Shinny

(1) Typical properties are based on testing of several batches under various processing conditions. They are not intended as specification limits.

### COMPOSITION PROPERTIES

**Viscosity:** 120 ± 30 Kcps, when measured with Brookfield HBT, Spindle #14, utility cup, 10 RPM, 25°C.

**Specific Gravity:** 2.20 - 2.60 g/cm<sup>3</sup>

**Recommended Thinner:** KOARTAN A-1039

## RECOMMENDED PROCESSING PROCEDURE

**Printing:** Printing with a 250 mesh stainless steel screen using 10-15 micrometer emulsion and 45 degree angle is recommended for most applications. Other mesh counts, 60-325, and emulsion thicknesses, 5-25 micrometer, may be used for special applications.

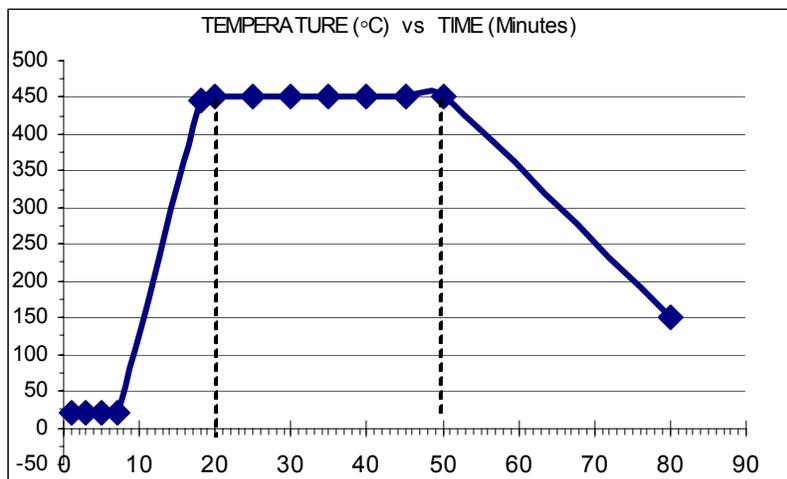
Coverage is approximately 110 cm<sup>2</sup> per layer, when utilizing a 250 mesh screen and a wet print thickness of about 38 micrometers.

**Drying:** Wet prints should be allowed to level for 5-10 minutes prior to drying. Dry for 10-15 minutes in a convection oven or belt dryer at 125°C-150°C.

**Firing:** Firing in air using a belt or box furnace is recommended. Air flow rates must be optimized to ensure that the products of binder burn-off discharge properly and create a fully

oxidizing atmosphere in the muffle. A temperature profile as shown the figure below is recommended.

**Storage and Shelf Life:** Store in tightly capped containers at room temperature. Shelf life is 6 months for unopened jars. Thorough mixing of the paste before each use is recommended. Under ordinary conditions of storage and use the product should not require thinning. However, solvent loss during extended printing runs may be replaced by incorporating up to 0.5% of Koartan A-1039 thinner.



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