

IP9117E

Dielectric / Glaze

Description

IP9117E is a permanent blue 850 °C firing dielectric composition, displaying the following benefits:

Key Features

- Expansion coefficient is closely matched with that of alumina, to provide for minimal substrate bowing
- Extremely dense, hermetic fired film allows for excellent electrical performance at a fired thickness of $\geq 40 \mu\text{m}$
- Excellent solderability and adhesion of Ag, Ag/Pd, Ag/Pt, Au and Au/Pt conductors on top of dielectric
- Resistors can be processed on top of dielectric
- Absence of the "Battery Effect"



This picture does not show the packaging of IP9117E and is solely intended for illustration purposes. The products are available in different packaging configurations and may change over time. Please refer to the latest safety data sheets for safety-relevant pictograms.

Typical Properties

Viscosity	45 – 75 Pas (23 °C, D = 33/s)
Solids	74.0 ± 1.5 %
Blendable	
Coverage	c. 70 cm ² /g (40 μm FFT)
Color	

Recommended Processing Guide

Printing Parameters	Print individual layers with a 200 – 325 mesh stainless steel screen. For best via resolution, a 325 mesh screen is recommended; whenever possible, a double wet pass of the squeegee is advised, to minimize pin holes.
Printing Speed	Up to 10 cm/s
Leveling	
Drying Temperature	Dry at 150 °C for 10 – 20 minutes.
Process Temperature (TDS)	All layers of the interconnected structure should be fired separately. Fire in air, with a 30 – 60 minute cycle to a peak temperature of 850 °C.
Film Thickness	$\geq 40 \mu\text{m}$ (3 separately fired layers)
Recommended Thinner	HVS-507
Paste Compatibility	Overglazes IP9025ST IP9029H Conductors Ag C1075D C1075SD (LPA411-076) AgPt C1076SD (LPA609-022) AgPd C1200D Series C2000 Series AuPt C6012 Au C5007 Resistors R8009 (WP 09-XY) Series

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Warranty

6 months

Storage

store in a dry, cool (5 – 25 °C) and dark place with container tightly shut

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