

Technical Data Sheet



Product Type: Polymer Thick Film

Product Name: PD5110 Black, Blue & White



Silicone Insulator

Description

PD5110 is a screen printable, modified silicone coating used for circuit protection. This material, when properly cured, yields a chemically inert film which will not react with circuit components. The cured film exhibits outstanding resistance to solvent attacks.

Key Benefits

- REACH¹ and RoHS² compliant
- Adheres to a variety of substrate materials
- Excellent resistance to SAC305 solder at 250 °C
- Excellent solvent resistance
- Chemically inert
- High contrast colour for visual alignment systems

Typical Properties

Insulation Resistance:

≥ 5 x 10¹⁰ ohms

Dielectric Breakdown Voltage:

> 1,500 volts/mil

Non-Volatile: (1Hr @ 150 °C)

86.0 % ± 2.0 %

Viscosity:

60 – 120 Kcps, Brookfield HBT, SC4-14 spindle and 6R utility cup @ 10 rpm, 25 °C

Dielectric Constant:

Black: 12 – 14

Blue: 9 – 11

White: 9 – 11

Recommended Processing Guidelines

Printing:

280 mesh stainless steel screen
0.5 mil emulsion

Curing:

30 – 60 minutes @ 150 °C

Cured Thickness:

40 – 50 microns per layer with 2 layers recommended

Thinner:

RV-221

Warranty:

Material guaranteed to meet specifications for 6 months from date of shipment

Handling & Precautions:

Use in a well-ventilated area.
Avoid contact with skin.
Wash with soap and water.

Storage:

Store in a dry location at 5 °C – 25 °C.

DO NOT REFRIGERATE.

Allow paste to come to room temperature prior to opening.

Spatulate well before using, as settling may occur during storage.

SPECIAL NOTE:

Some of these materials may show resistance shifts due to thermal storage. Stability baking has been shown to minimize this behavior.

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Legend:

1) REACH compliant according to the latest ** Annex XIV to Regulation (EC) of the European Parliament and of the council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH") by European Chemicals Agency and its subsequent amendments; the material does not contain any substance listed in Annex XIV.

2) RoHS compliant according to the latest ** Directives (European Union) of Restriction of Hazardous Substances ("RoHS") and its subsequent amendments (including the exceptions related to Pb)

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