

Technical Data Sheet

THICK FILM MATERIALS

Product Type: Polymer Thick Film

Product Name: PD 5100NW



Protective Silicone Insulator – White

Description

PD 5100NW is a white, one-component screen printable paste, based on a silicone resin. It is designed for use as a coating for mechanical circuit protection.

Key Benefits

- 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 and shows a good thermal stability
- Free of lead, cadmium, nickel and phthalate
- REACH² and RoHS³ compliant

Processing

- 1) Spatulate well prior to processing.

When stored in a refrigerator allow paste to come to room temperature prior to opening, to avoid condensation.
- 2) Print through a 200 mesh stainless steel screen. Total thickness: 90 – 110 µm
- 3) Level at room temperature for 5 – 10 minutes
- 4) Curing: alternative process
 - a. 150 °C for 1 hour in a conventional box oven
 - b. IR curing 280 °C (peak) for 20 minutes
- 5) Cleaning (wet paste): with Zestron ES 200

Important:

Check compatibility with the screen, the emulsion and with the screen frame adhesive before use.

Thinner

HVS 100
HVS 252

Typical Properties (Paste)

| | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form | Pseudoplastic paste |
| Viscosity | 50 – 70 Pas (25 °C, D = 40/s) |
| Shelf Life | 6 months from date of shipment with correct storage (in a dry, cool (5 – 23 °C) and dark place with container tightly shut) Avoid exposure to sunlight and high humidity. |

Typical Properties (Cured)¹

| | |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Thickness ² | c. 30 µm |
| Color | White Other colors available as below PD 5100NBL: Black PD 5100NBU: Blue PD 5100NG: Green PD 5100NRB: Royal (Dark) Blue |

Note:

PD 5100NW is not a protection to avoid Ag migration, if applied directly on Ag conductor lines.

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Legend:

1) Typical properties based on laboratory test methods. Optimal curing conditions depend on requirement of the cured film thickness.

2) 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.

3) 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)

* See the data sheet issue date (DD/MM/YY) as reference of validity of latest edition which is available on request

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