

Technical Data Sheet

PRODUCT DESCRIPTION

Copprint LF-301 provides the following product characteristics:

Technology	Screen printing
Appearance	Copperish paste
Filler Type	Copper
Product Benefits	<ul style="list-style-type: none"> • High conductivity • Small particle size • Good adhesion • Excellent printability with screen printing
Drying	Hot air
Sintering	Laminator/hot roller
Application	Conductive Ink
Key Substrates	Paper
Typical Assembly Applications	UHF and HF antenna & sensors

Copprint LF 301 screen printable paste is formulated to provide high electrical conductivity.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Average particle Size, μm	D50 < 0.15, D90 < 3.0
Solids Content, after 10 minutes @ 150°C, %	80 \pm 2
Density, g/ml	2.7 \pm 0.2
Viscosity @ 25°C, DVEHA Brookfield spindle 14, 100rpm, mPa·s (cps)	2000-2500
Theoretical coverage @ 5 μm dry film thickness,	20.9 m ² /kg
Shelf Life @ -10°C, days	180
Pot life @ 25°C, Hours	72
Flash Point - See SDS	

RECOMMENDED CURING

Drying cycle
120sec @80°C (Hot air, Reflow oven)

Sintering cycle
5 sec @ 260°C-310°C (Laminator)

8-20 sec @ 240°C (Hot roller)

Copprint LF-301 can be dried using hot air, (near) infrared or ceramic lamps.

The above drying is a guideline recommendation. Conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer drying equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Adhesion, (tape test 3M Scotch 234) pass

Electrical Properties - Sheet resistivity

Laminator @ 260°C, 5sec ohm/sq/25 μm <0.006

Laminator @ 300°C, 5sec ohm/sq/25 μm <0.004

GENERAL INFORMATION

For safe handling information on this product, consult the Safety Data Sheet, (SDS).

DIRECTIONS FOR USE

Preparation guidelines

1. Copprint LF-301 is supplied as "Sinter ready" formulation ready for use.
2. Mix formulation prior print.

*Detailed procedure can be found in Application Notes

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Application (screen properties)

Emulsion, Solvent and Water resistant emulsion, μm	10 to 40
Squeegee Shore Hardness	70 to 90
Screen Type, Polyester screen, mesh	100 to 300

CLEAN-UP

The equipment can be cleaned with Dowanol DB (CAS# 112-34-5) followed by water.

STORAGE:

Store product in the tightly closed container in a dry location below -10°C. Open the container carefully. Storage information may be indicated on the product container labeling.

Optimal Storage: below -10°C. Storage above -10°C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Copprint cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated.

Not for product specifications

The technical data contained herein are intended as reference only