Technical Data Sheet

Copprint LF-300

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PRODUCT DESCRIPTION

Copprint LF-300 provides the following product characteristics:

Technology	Screen printing
Appearance	Copperish paste
Filler Type	Copper
Product Benefits	• High conductivity • Small particle size • Excellent adhesion • Excellent printability with screen printing
Drying	Ceramic lamps/hot air/thermal plate
Sintering	Heat press
Application	Conductive Ink
Key Substrates	Paper
Typical Assembly Applications	UHF and HF antenna, heaters and sensors

Copprint LF 300 screen printable paste is formulated to provide high electrical conductivity.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Average particle Size, µm	<0.15
Solids Content, after 30 minutes @ 150ºC, %	85
Density, g/ml	2.7
Viscosity @ 25^{0}C , DVEHA Brookfield spindle 14, 100rpm, mPa·s (cps)	5000-9000
Thixotropic Index (1.5/15 s^{-1})	1.4-1.6
Theoretical coverage @ 5 µm dry film thickness,	17 m²/kg
Shelf Life @ 4°C, days	180
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE Recommended

Drying cycle

15 sec @ 150°C (Ceramic lamps)

120sec @85^{0}C (Hot air, Reflow oven)

Sintering cycle

30 sec @ 270°C (Heat press)

Basically, Copprint LF-300 can be dried using hot air, (near) infrared or ceramic lamps. Sintering should be carried out at 270^{0}C or above for 5-60 sec.

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 Resistance, ohm/sq/25 µm	<0.003

GENERAL INFORMATION

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

DIRECTIONS FOR USE

Preparation guidelines

1. Copprint LF-300 is supplied as “Sinter ready” formulation ready for use.
2. Mix formulation prior print.

*Detailed procedure can be found in Application Notes www.copprint.com

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 followed by water.

STORAGE:

Store product in the tightly closed container in a dry location below 4^{0}C. Open the container carefully. Storage information may be indicated on the product container labeling.

Optimal Storage: below 4°C. Storage above 4°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.

Note for product specifications

The technical data contained herein are intended as reference only.