

## PRODUCT DESCRIPTION

Copprint LF-390 provides the following product characteristics:

<b>Technology</b>	Screen printing
<b>Appearance</b>	Copperish paste
<b>Filler Type</b>	Copper
<b>Product Benefits</b>	<ul style="list-style-type: none"> <li>• Ultra high conductivity</li> <li>• Excellent adhesion</li> <li>• Excellent printability with screen printing</li> <li>• High metal loading</li> <li>• High flexibility</li> </ul>
<b>Drying</b>	Ceramic lamps/hot air/thermal plate
<b>Sintering</b>	R2R or Heat press
<b>Application</b>	Conductive Ink
<b>Key Substrates</b>	PI
<b>Typical Assembly Applications</b>	FPCB, Printed electronics

Copprint LF-390 screen printable paste is formulated to provide high electrical conductivity.

## TYPICAL PROPERTIES OF UNCURED MATERIAL

Average particle Size, $\mu\text{m}$	D50 < 1.0, D90 < 7.0
Solids Content, after 10 minutes @ 150°C, %	89±1
Density, g/ml	4.1
Viscosity @ 25°C, DVEHA Brookfield spindle 14, 100rpm, mPa·s (cps)	15,000-20,000
Theoretical coverage @ 14 $\mu\text{m}$ dry film thickness	10.5 m <sup>2</sup> /kg
Shelf Life @ -10°C, days	180
Flash Point - See SDS	

## RECOMMENDED CURING

Drying cycle  
120sec @100°C (Hot air, Reflow oven)

Sintering cycle  
10 sec @300°C (R2R laminator)

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
Cross cut test ISO 2409-2007	4b

## Electrical Properties

Sheet Resistance, ohm/sq/25 $\mu\text{m}$	<0.0025
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## GENERAL INFORMATION

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

## DIRECTIONS FOR USE

### Preparation guidelines

1. Copprint LF-390 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](http://www.copprint.com)

### Application (screen properties)

Emulsion, Solvent and Water resistant emulsion, $\mu\text{m}$	10 to 40
Squeegee Shore Hardness	70 to 90
Screen Type, Polyester and SS 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 -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

