

## Technical Data Sheet

### PRODUCT DESCRIPTION

Copprint LF-361 provides the following product characteristics:

Technology	Screen printing
Appearance	Copperish paste
Filler Type	Copper
Product Benefits	<ul style="list-style-type: none"> <li>• High conductivity</li> <li>• Excellent adhesion</li> <li>• Thin layer deposition</li> <li>• High metal loading</li> <li>• High flexibility</li> <li>• Low temperature sintering</li> </ul>
Drying	Hot air
Sintering	Hot roller or Hot press
Application	Conductive Ink
Key Substrates	PET, PC
Typical Assembly Applications	Printed electronics

Copprint LF 361 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 < 3.0
Solids Content, after 10 minutes @ 150°C, %	84±4
Density, g/ml	3.4±0.1
Viscosity @ 25°C, DVEHA Brookfield spindle 14, 100rpm, mPa·s (cps)	2000-3000
Theoretical coverage @ 5 $\mu\text{m}$ dry film thickness,	31 m <sup>2</sup> /kg
Shelf Life @ -10°C, days	180
Pot life @ 25°C, Hours	72
Flash Point - See SDS	

### RECOMMENDED CURING

Drying cycle  
120sec @ 70°C (Hot air, Reflow oven)

Sintering cycle  
20 sec @ 180°C-210°C (Hot roller)  
120 sec @ 160°C-200°C (Hot press)

Relaxation cycle  
PET: 120 sec @ 140C (Hot air, Reflow oven)  
PC: 120 sec @ 110C (Hot air, Reflow oven)

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
Cross cut test ISO 2409-2007	4-5 b

#### Electrical Properties - Sheet resistivity

Hot roller @ 190°C, 20sec ohm/sq/25 $\mu\text{m}$	<0.005
Hot press @ 160°C, 120sec ohm/sq/25 $\mu\text{m}$	<0.006

### GENERAL INFORMATION

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

### DIRECTIONS FOR USE

#### Preparation guidelines

1. Copprint LF-361 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 screen, mesh	150 to 250

### 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

