

IK-360

Beta

Mar 2021

PRODUCT DESCRIPTION

Copprint IK-360 provides the following product characteristics:

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

IK-360 screen printable paste is formulated to provide high electrical conductivity.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Average particle Size, μm	D50 < 1.0, D90 < 7.0
Solids Content, after 10 minutes @ 150°C, %	90 \pm 1
Density, g/ml	4 \pm 0.1
Viscosity @ 25 °C , DVEHA Brookfield spindle 14, 100rpm, mPa·s (cps)	13,000-17,000
Theoretical coverage @ 15 μm dry film thickness	11.4 m ² /kg
Shelf Life @ -10°C, days	180
Pot life @ 25°C, Hours	72

RECOMMENDED CURING

Drying cycle

120sec @90 C (Hot air, Reflow oven)

Sintering cycle

R2R option: 12 sec @170°C (laminator)

S2S option: 120 sec @160°C (Hot Pressing)

Relaxation cycle

PET: 120 sec @ 140C (Hot air, Reflow oven)

PC: 120 sec @ 110C (Hot air, Reflow oven)

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

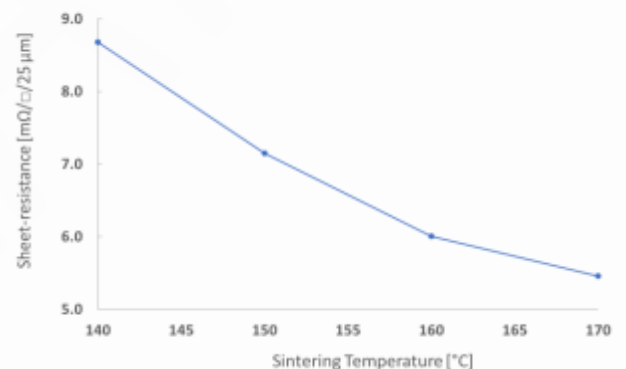
Cross cut test ISO 2409-2007 3-4 b

Sheet resistivity

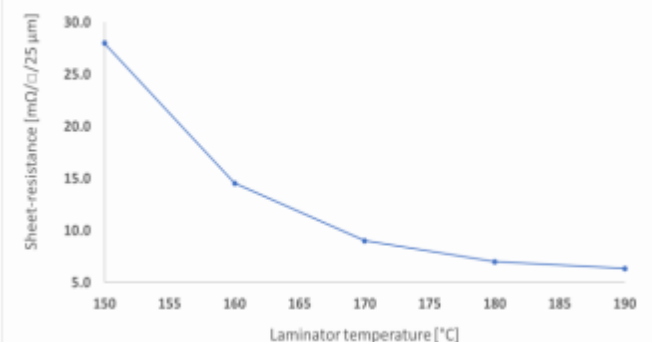
S2S (Hot press), ohm/sq/25 μm <0.006

R2R (Contactless Laminator), ohm/sq/25 μm <0.009

S2S sintering temperature by hot press (120 sec)



R2R sintering via contactless laminator (12 sec)



Conditions (time and temperature) may vary based on customers'

GENERAL INFORMATION

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

DIRECTIONS FOR USE

Preparation guidelines

1. Copprint LF-360 is supplied as "Sinter ready" formulation ready for use.
2. Mix formulation prior print.

*Detailed procedure can be found in Application Notes

www.ipss.co.kr

Application (screen properties)

Emulsion, Solvent and Water-resistant emulsion, μm	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 and repeated if necessary.

STORAGE:

Store product in the tightly closed container in a dry location at a temperature below -10 C° . Open the container carefully.

Optimal Storage: below -10°C . Storage above -10°C damage 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.