



## Metalon® Conductive Inks for Printed Electronics

www.novacentrix.com

### Metalon® HPS-FG53 Nanoflake Silver Screen Ink

- Particle:** 0.3 micron diameter silver nanoflake
- Substrates:** Paper, plastics, glass, metals
- Features:** Solderable, flexible, excellent water resistance  
 Excellent adhesion to a variety of substrates  
 Small particle size allows finer line printing

#### Thermal cure data:

Cure Temperature <sup>1</sup> (°C)	Sheet Resistance <sup>2</sup> (Ω/sq)	Volume Resistivity <sup>3</sup> (Ω-cm)	Sheet Resistivity <sup>3</sup> (Ω/sq/mil)
100	0.045	67 E-06	0.027
125	0.033	50 E-06	0.024
150	0.028	42 E-06	0.020
175	0.020	29 E-06	0.017
200	0.010	16 E-06	0.006
225	0.004	6.5 E-06	0.003
250	0.003	5.5 E-06	0.002
275	0.002	3.5 E-06	0.001

<sup>1</sup> Typical cure time: 10-30 minutes, <sup>2</sup> Based on 15 micron print with 25% porosity, <sup>3</sup> At 25% porosity

<b>Physical Properties</b>	<b>General Description</b> .....Ag flake ink in butyl carbitol <b>Viscosity (typical values)</b> .....90,000 cP at 1sec <sup>-1</sup> , 17,000 cP at 10 sec <sup>-1</sup> , 5000 cP at 100 sec <sup>-1</sup> <b>Specific Gravity</b> .....3.2 <b>Flash Point</b> .....99°C (flash point of solvent – closed cup) <b>Particle Size (typical)</b> .....D50   0.3 micron D90   0.6 micron <b>Ag Content</b> .....77 wt%
<b>Storage and Printing</b>	<b>Storage</b> .....Room temperature <b>Shelf life</b> .....>6 months <b>Cleaning solvent</b> .....Isopropanol <b>Screen mesh material</b> .....Stainless steel or polyester <b>Screen mesh count</b> .....400 to 80 wires per inch
<b>Shipping and Packaging</b>	Standard sample order is 100g or multiples of 100g. Inquire directly for packaging of larger quantities.

www.novacentrix.com  
 Contact us today to learn more.  
[inkstechnicalsupport@novacentrix.com](mailto:inkstechnicalsupport@novacentrix.com)

