

**ECI 1010**

January 15

**PRODUCT DESCRIPTION**

ECI 1010 provides the following product characteristics:

Technology	Solvent based PTF ink
Appearance	
Filler Type	
Product Benefits	High conductivity, good flexibility and good adhesion
Drying	2 min 150°C
Application	Conductive ink
Typical Assembly Applications	Printed circuits, RFID and other conductive circuits, etc.
Operation Temperature - Maximum	100°C
Key Substrates	

ECI 1010: Screen printable ink with very high conductivity, good adhesion and good flexibility.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

Property	Method	Typical Value
Viscosity 15s-1 (mPa.s)	TP534W (Rheometer)	4500
Solids (%)	TP506W	61-63
Density (g/ml)		2.1
Theoretical Coverage (m <sup>2</sup> /kg @ 10 µm)		10.7

**TYPICAL DRYING PERFORMANCE****Recommended Drying Cycle**

2 min @ 150°C

ECI 1010 can be dried with forced air or infrared systems. Higher temperatures for longer time will improve the performance. However, care should be taken with infrared. Too much energy can destroy the coating. Design drying rates for the maximum the substrate and production speeds can tolerate.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements as well as customer curing equipment, oven loading and actual oven temperatures.

**TYPICAL PROPERTIES OF CURED MATERIAL****Physical Properties**

Property	Method	Typical Value
Adhesion	Cross cut test	5B

**Electrical Properties**

Property	Method	Typical Value
Sheet resistance (Ohm/sq/25µm)	TP574W	< 0.007

**GENERAL INFORMATION**

For safe handling information on this product, consult the Material Safety Data Sheet.

**DIRECTIONS FOR USE****1. Surface Preparation**

Thoroughly clean the surface prior to application of the ink.

**2. Mixing/Dilution**

Mix thoroughly before use till the ink is homogeneous. This can be done with a propeller mixer. The ink is ready for use. If needed it can be diluted with butyl glycol acetate.

**3. Application**

**Emulsion:** Solvent resistance emulsion, 10 – 40 µm.

**Squeegee:** Shore hardness 70 -90.

**Screen type:** polyester, 160 – 200 mesh.

**Clean-up**

The equipment can be cleaned with esters (butylacetate, ethylacetate) or ketones (MIBK, MEK).

**Storage**

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

**Optimal Storage: 2-8°C. Storage below 0°C or greater than 30°C can adversely affect product properties.**

Material removed from containers may be contaminated during use. Do not return products to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If



additional information is required, please contact your local Technical Service Center or Customer Service Representative.

#### NOTE

This product is a developmental product. It is not now, and may not be in the future, commercially available. The properties of the uncured material and the physical properties of the cured material have been established as a point of reference only. Henkel recommends that each prospective user test his proposed application before repetitive use, using this data as a guide. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. This product may contain materials that are not regulatory listed on TSCA, EINECs and other global inventories.

Henkel cannot assume responsibility for the results obtained by others over whose methods Henkel has no

control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof.

In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.**

#### TRADEMARK USAGE

Except otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

CONFIDENTIAL