

LOCTITE NCI 9001 E&C

November 2012

PRODUCT DESCRIPTION

LOCTITE NCI 9001 E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Clear liquid
Product Benefits	• Screen printable • Insulating • Excellent transparency • Good flexibility • Process ease
Cure	Hot air drying
Application	Dielectric coating
Key Substrates	Polyester film, Glass and Metal substrates
Typical Assembly Applications	Electrical isolation in lighting and display applications

LOCTITE NCI 9001 E&C screen printable dielectric is designed for use as a protective layer and insulator applied over transparent conductive ink prints for improved strength and performance.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density, Density Cup, g/cc	1.0
Viscosity, Brookfield, 25 °C, mPa·s (cP):	
Speed 10 rpm	450
Shelf Life @ 25°C (from date of manufacture), days	365
Flash Point - See MSDS	

TYPICAL SCREEN PRINTING PROCESS

Recommended Screen Type

- Monofilament polyester screen
- Stainless steel screen

Emulsion Thickness

Emulsion Thickness, µm	10 to 40
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Recommended Squeegee Hardness

Squeegee Hardness, durometer	70 to 80
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TYPICAL DRYING CYCLE

Recommended Drying Cycle

5 minutes @ 130°C

LOCTITE NCI 9001 E&C can be dried using forced air or infrared systems. Higher temperatures for longer time exposure will improve the performance. 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 drying profile 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

Transparency, UV-vis spectrometer, %	100
Haze, UV-vis spectrometer, %	0.03

GENERAL INFORMATION

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

DIRECTIONS FOR USE

Mixing/Dilution

1. Stir to ensure homogeneity before use.
2. Avoid rapid stirring, as this causes air entrapment.
3. If needed, the ink can be diluted with DPM (Dipropylene glycol methyl ether). The solvent should be mixed in thoroughly, including scraping the sides of the container, for over a minute until it is homogenous and streak free.

Cleanup

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

Storage

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Keep container tightly closed when not in use.

Optimal Storage: 25°C. Storage below -20°C or above 40 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product 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.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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