Technical Data Sheet

LOCTITE ECI 7005 E&C

July 2017

PRODUCT DESCRIPTION

LOCTITE ECI 7005 E&C provides the following product characteristics:

Technology	Thermoplastic
Appearance	Black
Filler Type	Carbon
Cure	Hot air drying
Product Benefits	• Water-based • Applicable with flexigraphic or rotogravure print techniques • Conductive
pH	7 to 8
Application	Conductive Ink
Typical Assembly Applications	Electronic circuitry
Key Substrates	PET, paper or non-woven textile

LOCTITE ECI 7005 E&C is a water-based, conductive carbon ink specially formulated for high speed printing techniques.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield , mPa·s (cP):	
Spindle 6, speed 20 rpm	10,000
Solids Content, %	36.5
Shelf Life @ 5 to 50°C (from date of manufacture), days	365
Flash Point DIN 53213°C	78

TYPICAL CURING PERFORMANCE

Recommended Drying Conditions

2 minutes @ 120°C

Higher temperatures 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

Electrical Properties

Sheet Resistance, drawdown on PET substrate, after 2 minutes @ 120°C, ohm/sq/25µm	<40

GENERAL INFORMATION

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

DIRECTIONS FOR USE

Surface Preparation

1. Surfaces to be coated must be clean, dry and free of dust and grease.

Mixing/Dilution

1. Prior to application, it is recommended to dilute LOCTITE ECI 7005 E&C with 2 to 4 % demi water.
2. Thoroughly homogenize LOCTITE ECI 7005 E&C before use. Check to make sure there are no unmixed solids at the bottom of the container.

Application

1. LOCTITE ECI 7005 E&C can be used on a wide variety of plastic and paper substrates. The anilox volume will dictate the obtained conductivity.
2. An anilox of 60 lines/cm and 9.5 ml/m² , a resistance in the range of around 6 kOhm/sq can be obtained.

CLEAN-UP

The equipment can be cleaned with water.

STORAGE:

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

Optimal Storage : 5 to 50 °C

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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = 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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