

LOCTITE EDAG PD 038 E&C

September 2014

PRODUCT DESCRIPTION

LOCTITE EDAG PD 038 E&C provides the following product characteristics:

Technology	Acrylic
Appearance	Translucent
Product Benefits	• Non-conductive • Screen printable • Excellent adhesion • High peel strength • Fast UV cure • Dots printable at high aspect ratio
Cure	Ultraviolet (UV)/ visible light
Application	Dielectric coating
Operating Temperature-Maximum	175°C
Typical Assembly Applications	Dot spacer for digitizers, Computer touch panels, Palm top touch panels and Spacer for copper etched circuitry
Key Substrates	ITO sputtered polyester film, Copper circuitry, Glass and Metal substrates

LOCTITE EDAG PD 038 E&C dielectric ink is used as a dot spacer on ITO sputtered polyester film. This product does not adhere well to non-printed treated, non-ITO sputtered polyester film.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content, %	100
Viscosity, Brookfield , mPa·s (cP):	
Spindle 6, speed 20 rpm, , @ 25°C	20,000
Density, kg/cm ³	1,090
Shelf Life (from date of qualification in original seal):	
below 60°C , days	365

TYPICAL SCREEN PRINTING PROCESS

Recommended Film Thickness

Polyester screen , µm

@ 32 T	50 to 75
@ 64 T	33
@ 80 T	23 to 25

Emulsion Type

Diazo sensitized direct photo film

Recommended Squeegee

Polyurethane , durometer	60 to 75
--------------------------	----------

Recommended Screen Type

Polyester screen , T	32 to 80
----------------------	----------

Printing Equipment Type

Manual
Semi-automatic

TYPICAL CURING PERFORMANCE

Recommended UV Cure Condition

@ 25µm, EIT Radiometer, Joule/cm² each pass 0.3 to 0.6

At thickness greater than 25µm, lower speeds and higher intensities are needed.

The above cure profile is a guideline recommendation. 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

Coverage @ 10µm thickness, m ² /kg	85
Adhesion, grade:	
50µm thick ITO film	5B

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Stir LOCTITE EDAG PD 038 E&C prior to each use.
2. Bring product to room temperature prior to use.

Clean-up

To clean screen and equipment, use Methyl ethyl ketone (MEK), MIBK, Isopropanol or similar solvents

Storage

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

Optimal Storage: Below 60°C. Storage greater than 60°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

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

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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

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. 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada, Inc. the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have 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.** 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. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as 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.

Reference 0.2