Technical Data Sheet

LOCTITE ECCOBOND F 113SC

January 2016

PRODUCT DESCRIPTION

LOCTITE ECCOBOND F 113SC provides the following product characteristics:

Technology	Epoxy
Appearance (Resin)	clear
Appearance (Hardener)	Dark blue
Appearance (Mixture)	Dark blue
Cure	Room temperature cure or Heat cure
Product Benefits	• High Tg • Low viscosity • High bond strength • Low stress connections with no pistoning • Dark blue color allow for easy polishing
Mix Ratio, by weight - Resin : Hardener	100 : 30
Operating Temperature	-60 to 120 °C
Application	Assembly
Typical Optic Application	Fiber optic connectors, LED displays, Lenses and Optoelectronic device assembly

LOCTITE ECCOBOND F 113SC is formulated for terminating all types of fiber optic connectors.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index	1.0
Viscosity @ 25 °C, mPa·s (cP):	
After Mixing	1,800
Specific Gravity, mixed	1.1
Pot Life 25 grams, minutes	35
Work Life25 grams, hour	1
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

18 hours @ 25°C or
1 hour @ 65°C or
15 minutes @ 90°C (for one drop applications)

Percent Volatiles

VOC, grams/liter	1.91

Sufficient cure in 15 minutes @ 65ºC is developed for polishing connectors.

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

Glass Transition Temperature (Tg), °C	95
Coefficient of Thermal Expansion cm/cm/ºC:	
Below Tg	7.57×10^{-05}
Above Tg	1.91×10^{-04}
Hardness, Shore D	83
Refractive Index	1.52
Water Absorption, %	0.98

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Lap Shear Strength, :	
1 hour @ 65°C, psi	3,900
24 hours @ 25°C, psi	2,700

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded
2. Remove clamp and thoroughly mix the LOCTITE ECCOBOND F 113SC epoxy adhesive system components in the handy BIPAX mixing-dispenser package until color is uniform throughout
3. Apply this completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured
4. Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use
5. Some ingredients in this formulation provided in BIPAX, TRA-PAX and bulk packaging may crystallize when subjected to low temperature storage. A gentle warming cycle of 52ºC for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be redissolved prior to use for best results

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.

Storage

The expiration date for pre-mixed and frozen materials is based upon dry storage conditions at or below the temperature indicated on each package. Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage : 27 °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. Contents may separate during storage. Resin or hardener in bulk containers (e.g., quarts, gallons) should be thoroughly mixed prior to combining them to obtain all the benefits of the properties designed into the formulation.

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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