Hysol

XE80100

November 2011

PRODUCT DESCRIPTION

XE80100 provides the following product characteristics:

Technology	Epoxy
Appearance	Off-white
Product Benefits	• One component • Non-conductive • Low stress • Solvent-free • Semi flexible • High operating temperature
Cure	Heat cure
Operating Temperature	-45 to +200ºC
Application	Assembly
Typical Assembly Applications	Substrate attach and Heat sink bonding

XE80100 is a solventless modified epoxy adhesive that combines low stress with good adhesion on nearly all surfaces and is flexible for mismatched CTE applications. XE80100 is the non-conductive version of ECCOBOND CE8500 adhesive.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25ºC, 10 s^{-1}, mPa·s (cP)	12
Density , g/cm³	1.15
Shelf Life @ -25 to -18°C (from date of manufacture), months	6
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

90minutes @ 120°C
60minutes @ 150°C
15minutes @ 175°C

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:

Hardness, Shore A		82
Glass Transition Temperature:		
by DMA , %		59
by TMA , %		45
Coefficient of Linear Thermal Expansion, 10^{-6} K^{-1}		140
Young's modulus:		
@ 25°C	N/mm² (psi)	10 (1,450)
@ 50°C	N/mm² (psi)	3 (435)
@ 100°C	N/mm² (psi)	2 (290)

Extractable Ionic Content, , ppm:	
Chloride (Cl-)	200
Sodium (Na+)	10
Potassium (K+)	10
Ammonia (NH4+)	75

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength :

Al to Al:		
@ 25°C	N/mm² (psi)	5.2 (754)
@ 125°C	N/mm² (psi)	0.3 (43.5)
PBT to PBT:		
@ 25°C	N/mm² (psi)	1.6 (232)
@ 125°C	N/mm² (psi)	0.1 (14.5)

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the warmed up container should be removed prior to opening the container.

DIRECTIONS FOR USE

1. Refrigerate XE80100 to maintain viscosity.
2. Some separation of components is common during shipping and storage. If separation occurs, stir gently until uniform, being careful not to entrap air.
3. The surfaces on which the adhesive has to be applied should be clean, dry and free from all dust.

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.

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

Optimal Storage: -25 to -18 °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.

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
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note
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