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AC A535

High Tg and Polishable UV-curable Adhesive

Features

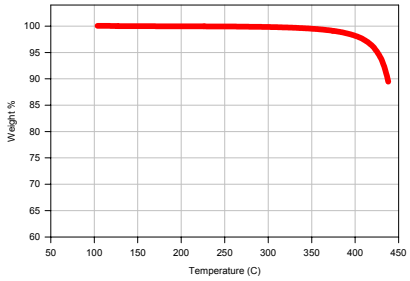
- High Tg
- UV-curable
- Excellent temperature resistance
- High hardness
- Polishable adhesive

Description

- UV-curable epoxy adhesive

TGA (Universal V3.0A TA)

Conditions: scan rate 20°C/min, in air



APPLICATIONS

Bonding glass to glass or glass to metal.
Suitable for hermetically seal applications.

TYPICAL PROPERTIES

Liquid	
Viscosity (cps, 25 °C)	3,000 – 4,000
Storage (°C)	15 – 25
Shelf life (15 - 25 °C)	6 months
Pot life (15 - 25 °C)	3 months
Cured film	
Outgas, weight % (125°C, 120 hr, air)	0.10
Water absorption (%, 100 °C until saturation)	0.7
Shrinkage (linear, %)	< 0.5
Hardness – Shore D	95
Glass transition temperature (DMA, °C)	155
Refractive index of cured film (25°C)	
@ 589 nm	1.570
@ 1310 nm	1.554
@ 1550 nm	1.550
Coefficient of thermal expansion (TMA), 75 μm film	
below Tg (x10^{-6}), °C^{-1}	40
above Tg (x10^{-6}), °C^{-1}	82
Physical properties tested at 25°C, 50% RH (ASTM D638)	
Tensile strength, psi (Kg/mm^2)	8,900 (6)
Elongation (%)	4
Modulus, psi (Kgf/mm^2)	340,000 (239)
UV curing conditions	
Spot cure system – UV dose (J/cm^2)	
250 – 450 nm filter	30 – 50
320 – 500 nm filter	35 – 55
Flood cure system – UV dose (J/cm^2)	3.0 – 4.0

***Minimum intensity recommended for Spot lamp system: 300 mW/cm^2
***Minimum intensity recommended for Flood lamp system: 125 WPI or 49 WPcm

***If a low intensity Spot lamp is used, intensity of 70 – 100 mW/ cm^2, we recommend a cure time of 7 to 10 minutes

***Post cure can enhance adhesion strength. Post cure conditions: 60 to 100 °C for 30 to 60 minutes
Maximum relative humidity for curing: 40%

SAFETY AND HANDLING

The un-cured adhesive can be cleaned from apparatus with isopropyl alcohol (IPA), methyl ethyl ketone (MEK), or commercial alcohol based cleaning solution.

Use caution in handling this material. Avoid direct skin and eye contact. Use only in well ventilated areas. Use protective clothing, **gloves and safety goggles**. Read Material Safety Data Sheet before handling.

Revised 12/2002