

## UV 566-14 Structural UV Epoxy

### Description

UV 566-14 is a fast cure, high viscosity UV-curable epoxy system. The cured material has excellent flexibility, good toughness and good adhesion to a variety of substrates including metals and plastics. It has low odor, and low skin and eye irritation potential. It does not contain volatiles and is very suitable for electronic applications. It is not inhibited by oxygen during UV cure, has low shrinkage, high gloss and good resistance to yellowing. The thixotropy has been adjusted to control excessive overflow.

### Applications

1. UV curable adhesive for plastics and metals.

### Guidelines for Use

1. Thaw the epoxy to room temperature (25°C) before use.
2. Dispense the epoxy by using a syringe.
3. Wipe off any excess uncured adhesive with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue dabbed with isopropanol alcohol (IPA).
4. Expose the epoxy to long UV wavelength light in the 320-380 nm range at 1000 mW/cm<sup>2</sup> for 3 seconds.
5. If necessary, ultimate properties may be obtained faster by additional curing of the epoxy in a convection oven at 120°C or higher for 60 minutes.

### Properties

Property	Test Method	Unit	Typical Value
Chemical type	-	-	Epoxy
Appearance	Pen 10	-	White translucent paste
Mix ratio, by weight	-	-	One component
Density	Pen 61	g/cm <sup>3</sup>	1.23
Shelf life, -20°C	Pen 26	Month	6
Pot life, 25°C	Pen 26	Day	5
Viscosity, 25°C, 5rpm	Pen 44	cP	12,000
Thixotropic Index	Pen 37	-	3.5
Hardness	Pen 29	Shore D	87
Tg	Pen 19	°C	105
CTE, alpha-1	Pen 64	ppm/K	29
alpha-2	Pen 64	ppm/K	154
Adhesion Strength (metal to Ultem)	Pen 36	kgf	5.9
Lap Shear Strength, PC to PC	Pen 43	kgf	41
Storage Modulus, 40°C	Pen 105	MPa	1506
Moisture Absorption, 85°C/85%RH, 216 hours	Pen 98	%	0.56

### Recommended Cure

#### Pre-Cure

UV (mW/cm <sup>2</sup> )	Cure time
1000	3 sec
500	5 sec
200	15 sec

Tested on Fusion System F300S#H lamp

#### Post Cure

Temp.	Cure Time
120 °C	30 min

### Storage

Tightly close original container of unused product. Store below -20°C. Storing at lower temperatures down to -40°C may prolong shelf life beyond 6 months. However it may take longer time to thaw the product.

### Packaging

- 3ml Black EFD Syringe
- 5ml Black EFD Syringe
- 10ml Black EFD Syringe
- 30ml Black EFD Syringe

### Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

## Contact Information

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