UV EPOXY 151-091

UV GEL ADHESIVE SYSTEM

TECHNICAL DATA

Product Description

UV Epoxy 151-091 is designed for industrial adhesion, small potting, and laminating applications where a fast process cure is required. This two-part system will gel in seconds when exposed to medium intensity UV radiation, allowing secondary processes and packaging operations. Once cured, UV Epoxy 151-091 provides excellent electrical insulation and can be used as an adhesive for metals and most plastics. It exhibits excellent resistance to moisture, acid, bases, and most organic solvents. Once mixed and poured into final container or device, UV light can be used to gel the top surface of the polymer in as little as 5 seconds. Any polymer that is blocked from the UV light will reach a handling strength in approximately 120 minutes at room temperature.

In addition, UV Epoxy 151-091 has been designed to meet the ISO 10993 Protocol as a means to assist in the selection of products for use in the medical device industry. This product is also RoHS compliant under directives 2002/95/EC and 2003/11EC, as well as REACH compliant.

APPLICATIONS

- Electronic potting
- Industrial adhesion
- Laminating

FEATURES

- Two-part adhesive
- Convenient mix ratio
- Acid/base resistant
- Fast UV cure
- Electrically insulating
- RoHS and REACH compliant
- Moisture and chemically resistant

RECOMMENDED SUBSTRATES

- Metals
- Plastics

BIOCOMPATIBILITY

- Meets ISO 10993

UNCURED PROPERTIES		
Property	**Value**	**Test Method**
Chemical Class, PT A:B	Epoxy : Amine	N/A
Color, PT A:B	Clear : Amber	N/A
Viscosity @25°C, cps, PT A	500 to 650	QPTEST001
Viscosity @25°C, cps, PT B	3,000 to 4,000	QPTEST001
Specific Gravity, PT A	1.11	QPTEST002
Specific Gravity, PT B	0.96	QPTEST002
Mix Ratio by Volume, PT A:B	1:1	N/A

CURED MECHANICAL PROPERTIES		
Property	**Value**	**Test Method**
Durometer Hardness, Shore D	70	QPTEST012
Operating Temperature Range, °C	-50 to 155	N/A
Moisture Resistance	Excellent	N/A
Elongation, %	15 to 30	N/A

CURE OVERVIEW		
Property	**Value**	**Test Method**
Minimum Intensity, mw/cm^2	100	N/A
Spectral Output, Nm	200 to 310	N/A
Optimum Wavelength, Nm	300	N/A
Gel Time, 200 mw UV, sec	2 to 10	N/A
Pot-Life of 25g mass, min	20	N/A
Cure Time @ 25°C, hr	24	N/A
Cure Time @ 65°C, hr	2	N/A
Cure Time @ 100°C, min	30	N/A

Note: Because of the variability of different UV light sources it is suggested that the user test and specify UV intensity and exposure time. Low to medium intensity UV light sources (100 mw/cm2) may require as much as 10 second exposure time.

Storage:

Store material in cool, dry location at a temperature between 10°C to 28°C. Keep from freezing. Refer to packaging specific quote for shelf life information. Consult SDS for safe handling recommendations. Material is sensitive to UV and visible light, as well as moisture.

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