



HYBRID POLYMER 131-77MX

LOW STRESS, UNFILLED EPOXY BASED ENCAPSULATION POLYMER

TECHNICAL DATA

Product Description

Hybrid Polymer 131-77MX is a transparent, room temperature curing, two-part, epoxy-based system designed to encapsulate small to medium-sized electronic packages. This product provides excellent moisture, chemical, and physical shock resistance properties, ideal for protection against harsh environments. Hybrid Polymer 131-77MX also bonds readily to polycarbonate, nylon, and metal, making it a supreme choice for electronics encapsulation.

APPLICATIONS

- Electronic encapsulation
- Potting RF Transmitters

FEATURES

- Convenient mix ratio
- Moisture and chemically resistant
- Room temperature cure
- Physical shock resistant
- Low shrinkage
- Non-Acrylate Containing

RECOMMENDED SUBSTRATES

- Polycarbonate
- Nylon
- Metals

UNCURED PROPERTIES

Property	Value	Test Method
Solvent Content	No Nonreactive Solvents	N/A
Chemical Class, PT A:B	Epoxy : Amine	N/A
Color, PT A:B	Clear : Clear	N/A
Specific Gravity, PT A	1.07	QPTEST002
Specific Gravity, PT B	0.99	QPTEST002
Viscosity @ 25C, cps, PT A	5,200	QPTEST001
Viscosity @ 25C, cps, PT B	4,400	QPTEST001

CURED MECHANICAL PROPERTIES

Property	Value	Test Method
Durometer Hardness, Shore A	35	QPTEST012
Moisture Resistance	Excellent	N/A
Operating Temperature Range, C	-60 to 135	N/A
Tensile Strength, psi	>5,000	N/A
Glass Transition Temperature (Tg), C	54	N/A
Shrinkage, %	1.2	N/A
Index of Refraction	1.56	N/A
CTE, ppm, Below Tg	52	N/A
Dielectric Strength, Volts/mil	>400	N/A
Dissipation Factor, 1MHz	0.02	N/A

CURE OVERVIEW

Property	Value	Test Method
Mix Ratio by Volume, PT A:B	2:1	N/A
Work Life @ room temperature, min	30	N/A
Gel Time @ room temperature, 20g, min	90	N/A
Cure Time @ room temperature, 20g, hr	12 to 24	N/A

Note: This product is designed to provide a fast cure at room temperature. Because large masses of this system can generate excessive heat during cure it is recommended that all applications that require more than 30g of product be tested by Resin Designs LLC. before conducting any in-house testing.

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.

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