

OPTOLINQ™ LE-2161HT



Two-part BPA-free transparent epoxy resin

- Low viscosity
- Non-yellowing
- High transparency and good mechanical properties

OPTOLINQ™ LE-2161HT is a two-part BPA-free transparent epoxy resin ideal for potting small components and sealing large dot matrix panels and wearable smart devices. It offers a fast curing rate, low curing temperature, and low viscosity post-mixing, and delivers exceptional electrical properties and anti-yellowing property upon curing. To meet specific color requirements, it can easily be colored and diffused using specialized dye concentrates and diffusant concentrates.

OPTOLINQ™ LE-2161HT serves as an ideal option for various electronic applications, including smart rings, due to its ability to encapsulate delicate electronic components while maintaining transparency and providing robust electrical insulation.

Premixed properties

Property	Part A	Part B
Appearance	Colorless transparent liquid	Colorless transparent liquid
Specific gravity at 25 °C	1.1 ±0.05	1.0 ±0.02
Viscosity at 25 °C	475 ±175 cP	< 50 cP
Shelf life	183 days	93 days

Mixed properties

Property	Value	Unit
Mixing ratio by weight	3:1	-
Viscosity	370	cP
Pot life for a 100 g resin at 25 °C	90	min

Cured properties*

Property	Value	Unit
Water absorption at 25 °C (24 h soaking)	<0.3	%
Volume resistivity at 25 °C	> 1.0x10 ¹⁵	Ω · cm
Surface resistance at 25 °C	> 1.0x10 ¹⁴	Ω
Coefficient of thermal expansion	80	ppm/K
Withstand voltage	> 16	kV/mm
Transmittance at 450–1000 nm	> 90	%

*Test sample was cured at 60 °C for 4 h.

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Property	Value	Unit
Hardness	75 $\pm$ 5	Shore D
Tensile Strength	55	MPa
Elongation	4	%

Recommended curing conditions: Cure at 25 °C for 24 h or at 50–60°C for 4 h or 80°C for 2 h.

These guidelines offer recommended curing parameters. Define the exact curing parameters to align with your product specifications.

Precautions for Use

1. The usable time after A and B are mixed strongly depends on the temperature and mixing volume. Higher temperatures and larger mixing volumes lead to shorter working times. Therefore, the mixing temperature and amount should be determined based on on-site procedures.
2. Use the product in a clean and well-ventilated workplace.
3. Wear appropriate safety equipment before use and avoid direct contact with the body. Please read the Material Safety Data Sheet (SDS) carefully before using.

Please note that the provided information is based on available data and typical conditions. For specific applications and detailed test results, refer to the actual test data and conduct appropriate certifications.

Storage and Handling

Store in a ventilated, dry, and clean environment. Keep away from fire and heat sources. It is strictly forbidden to store in outdoor environments. The validity time will vary depending on storage conditions. At proper storage conditions, Part A and Part B have a shelf life of 183 and 183 days, respectively. Shelf life can be extended by using cold storage.