

# OPTOLINQ LE-5031



## Two-part low-viscosity transparent epoxy resin

- Low viscosity
- High transparency
- Excellent solvent, aging, and thermal resistance

**OPTOLINQ LE-5031** is a low-viscosity, two-part, halogen-free epoxy resin with high transparency and a high-gloss finish. It offers robust stability in acidic and alkaline environments, good anti-aging properties, high durability even under extreme temperatures, and superior scratch and abrasion resistance. For specific color requirements, LE-5031 can be customized using color or opaque pastes.

LE-5031 is a suitable coating for metal and polymer surfaces, providing a polished finish and excellent surface integrity. It is the preferred choice for coating solar cell panels, transparent potting of electronic components for insulation and moisture-proofing, high-voltage coil potting, and room temperature potting of capacitors and transformers. LE-5031 complies with ROHS and REACH standards, offering a reliable solution for encapsulation and sealing applications.

### Premixed properties

Property	Part A	Part B
Appearance	Colorless transparent liquid	Light yellow transparent liquid
Specific gravity at 25 °C	1.18	0.98
Viscosity at 25 °C	1250±250 cP	115±35 cP
Flash point	>140 °C	>140 °C
Shelf life	183 days	183 days

### Mixed properties

Property	Value	Unit
Mixing ratio by weight	3:1	-
Pot life (for a 100 g resin at 25 °C)	1	h

### Cured properties

Property	Value	Unit
Water absorption	<0.15	%
Bending strength	132.39	MPa
Tensile strength	58.84–68.65	MPa
Elongation	3.6	%
Hardness	81	Shore D

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### Recommended curing conditions:

Initially cure at **25 °C for 24 hours** and then at **100 °C for 1 hour**.

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

### Precautions:

1. Follow the recommended mixing ratio precisely.
2. Make sure to stir the mixture thoroughly. Use the mixture as soon as possible.
3. When the relative humidity exceeds 85%, the solid surface can absorb moisture from the air, producing a white fog. Room temperature curing is not advised when the relative humidity is greater than 85%. Instead, consider heated curing as a recommended alternative.
4. After each use, seal the container tightly to prevent moisture from infiltrating and compromising the product's quality.

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 below 30 °C and 70% RH. Keep away from fire and heat sources. It is strictly forbidden to store in outdoor environments. At proper storage conditions, Part A and Part B both have a shelf life of 183 days. Shelf life can be extended by using cold storage.

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