# OPTILINQ LE-5031HY



# Two-part low-viscosity transparent epoxy resin

- Low viscosity
- High transparency
- Excellent anti yellowing and aging properties

OPTOLINQ LE-5031HY is a low-viscosity, two-part, halogen-free epoxy resin. After curing, it demonstrates high transparency, excellent resistance against aging and yellowing, and good mechanical properties. LE-5031HY provides excellent resistance to chemical attacks in both acidic and alkaline environments, along with strong thermal resistance and superior scratch and abrasion resistance. It is the anti-yellowing resistant version of LE-5031.

**OPTOLINQ LE-5031HY** is a suitable coating for metal and polymer surfaces, and solar cell panels, transparent potting of electronic components for insulation and moisture-proofing, high-voltage coil potting, as well as room temperature potting of capacitors and transformers. LE-5031HY 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 (24 h soaking)	<0.15	%
Flexural strength	132.39	MPa
Tensile strength	58.84-68.65	MPa
Elongation	3.6	%
Hardness	81	Shore D
Withstand voltage at 25 °C	12-18	kV/mm

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Recommended curing conditions: Cure at 25 °C for 24 h or at 100 °C for 1 h

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

#### **Precautions for Use**

- 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 >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. 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 180 days. Shelf life can be extended by using cold storage.

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