

OPTOLINQ™ LE-8011HT



Two-part epoxy resin with visible light blocker

- Excellent thermal stability
- Excellent UV stability
- High light transmittance

OPTOLINQ™ LE-8011HT is an epoxy resin specifically designed for infrared device packaging applications. This resin exhibits superior thermal stability and excellent UV stability, ensuring that devices can withstand high temperatures and ultraviolet light exposure without degradation. Upon curing, **OPTOLINQ™ LE-8011HT** forms robust cross-linked networks, providing strong adhesion and maintaining airtight seals. These properties make LE-8011HT an ideal high-performance solution for infrared device packaging.

Property	Part A	Part B
Premixed properties		
Appearance	Black	Clear to Light Yellow
Shelf life	12 months	12 months
Specific gravity	1.06	0.9

Property	Value	Unit
Mixed properties		
Mixing ratio	100:95	w/w
Viscosity at 25°C	500–700	cP
Gel Time at 120°C	205–275	s
Pot Life at 25°C, 200 grams	7	h
Cured properties		
Glass Transition Temperature		
TMA (10°C/min)	140–160	°C
DMA (3°C/min)	163–173	°C
Coefficient of Thermal Expansion, α_1	65–75	ppm/°C
Coefficient of Thermal Expansion, α_2	170–190	ppm/°C
Hardness	81–91	Shore D
Moisture Absorption		
PCT 40 min, 70 MPa	0.74	%
PCT 80 min, 70 MPa	1.05	%
Flexural Strength	96	MPa
Flexural Modulus	3.2	GPa

The technical data presented above is intended for reference purposes only. Users are advised to conduct their own testing and evaluation to ensure compatibility with their specific requirements. Material properties can be adjusted according to specific customer requirements.

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Optical properties

Light Transmittance

at 450 nm	0.0	%
at 600 nm	0.0	
at 850 nm	82.58	
at 900 nm	86.89	
at 950 nm	88.12	

Recommended Curing Conditions

Parameter	Value	Unit
Initial cure temperature	130	°C
Initial cure time	1	hour
Full cure temperature	150	°C
Full cure time	4	hour

Processing Instructions

- Mix Parts A and B in a 100:95 weight ratio. Ensure that the mixture is uniform and free from streaks or unevenness.
- Degas the mixture under vacuum using a centrifugal planetary mixer.
- Typical curing conditions are recommended and should be optimized based on the package being encapsulated.

Storage and Handling

The uncured resin can be cleaned with acetone or a suitable cleaning agent. Water cannot be used as cleaning agent.

Store in a cold, dry, and clean environment between 10–30 °C with relative humidity below 70%. Keep away from exposure to direct sunlight. It is strictly forbidden to store in outdoor environments. At proper storage conditions, unopened Part A and Part B has a shelf life of 12 months.

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