

OPTOLINQ TC-8020T

Clear epoxy molding compound



- LED Encapsulation
- Optically Clear
- Customizable Filters

OPTOLINQ TC-8020T is a high-performance, high transmission, clear epoxy molding compound specifically developed for optical emitters, detectors and other optical sensor. This single-component, optically clear compound resists yellowing after reflow and after long-term temperature exposure.

OPTOLINQ TC-8020T is designed for Surface Mount Device (SMD) packages and Through Hole packages, particularly well suited to Monochromatic (single color) RGB ChipLED and optoelectronics applications. **OPTOLINQ TC-8020T** is available with filter at 450 nm, 800 nm, and 840 nm.

Cured properties

Property	Value	Unit
Specific gravity	1.24	–
Hardness	84	Shore D
Gel time	30±10	s
Spiral flow	200±50	cm
Glass transition temperature by DSC	125	°C
Coefficient of thermal expansion, α_1	70	ppm/K
Coefficient of thermal expansion, α_2	170	ppm/K
Flexural strength	130	MPa
Flexural modulus	3.0	GPa
Moisture absorption		
24 hrs @25°C water	0.17	%
24 hrs @121°C, 2atm, 100%RH	3.2	%
Transmittance at 450 nm and 940 nm ¹	>90	%
Refractive Index at 633 nm	1.56	-

¹ Sample Thickness: 1mm

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Recommended mold parameters

Parameter	Value	Unit
Preheating temperature	40–80	°C
Molding temperature	150±10	°C
Transfer pressure	2.45±1.47	MPa
Transfer time	35±15	s
Cure time	180–300	s
Post mold cure time at 150 °C	4–6	h

Processing Instructions

- Be sure to keep the product dry as moisture can lead to curing failures or affect the electrical integrity of compounds.
- Before use, thaw **OPTOLINQ TC-8020T** for 16–24 hours at 20–25 °C with the package sealed until product reaches room temperature. Keep the packaging unopened to prevent moisture contamination.
- Products must be used up within 24 hours after thawing.

Packaging Instructions

- Keep the molding compound sealed with aluminum laminated bags, in quantity of 1 kg each bag and 10 kg each box.

Storage and Handling

To ensure the integrity of **OPTOLINQ TC-8020T**, store and use the products by following the recommended conditions. Keep it away from heat sources like molding dies and lead-frame preheating panels, as prolonged heat exposure can lead to the degradation of the molding compound. Keep the product at 5°C or lower ideally at 5°C or lower for storage and transport. Under proper conditions, the shelf life of the product is 6 months from the manufacturing date.

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.

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