

OPTOLINQ GT-W170MG S1-1



White epoxy molding compound

- High-temperature resistance and resistance to yellowing
- High light reflectance and exceptional light shielding effect
- Outstanding MSL performance

OPTOLINQ GT-W170MG S1-1 is a premium white epoxy molding compound designed for the encapsulation of optical and optoelectronic semiconductor devices. It delivers exceptional photoelectric performance through outstanding light reflectance, shielding properties, and high-temperature stability. GT-W170MG S1-1 is the improved non-green version of GT-W170MG.

OPTOLINQ GT-W170MG S1-1 complies with the stringent safety standards for voltage isolation and flammability. With its low moisture absorption and excellent anti-solderability, GT-W170MG enables devices to achieve high moisture sensitivity levels (MSL). It ensures optimal device performance and reliability in diverse applications, and is compatible with a wide range of packages, such as dual in-line packages (DIP), small outline integrated circuits (SOIC), and plastic leaded chip carriers (PLCC).

Cured properties

Property	Value	Unit
Specific gravity	2.04	–
Hot hardness at 175°C	84	Shore D
Gel time at 175°C	12	s
Spiral flow at 175°C	65	cm
Glass transition temperature by TMA	155	°C
Coefficient of thermal expansion, α_1	26	ppm/°C
Coefficient of thermal expansion, α_2	79	ppm/°C
Mold Shrinkage	0.5	%
Flexural strength	125	MPa
Flexural modulus	15	GPa
Adhesion Strength to Ni	0.03	MPa
Reflectance at 940 nm	77	%
Transmittance at 940 nm	≤0.1	%
Comparative Tracking Index (CTI)	400	V
Dielectric Strength	18	kV/mm
Flammability rating at 1/8 in	V-0	UL94

Europe

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Recommended mold parameters

Parameter	Value	Unit
Preheating temperature	90±5	°C
Molding temperature	170±10	°C
Transfer pressure	3.92–8.82	MPa
Transfer time	10–13	s
Cure time	125±25	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 **GT-W170MG S1-1** for 16–24 hours at 20–25 °C with the package sealed. Keep the packaging unopened to prevent moisture contamination.

Storage and Handling

To ensure the integrity of **OPTOLINQ GT-W170MG S1-1**, keep it away from oxidizing materials. Avoid exposure to heat sources like molding dies and lead-frame preheating panels, as prolonged heat exposure can lead to the degradation of the molding compound. Transport the product at or below 10°C for best results. For extended storage, maintain a cold environment, ideally at 5 °C or lower. Under proper conditions, the shelf life of the product is 9 months from the manufacturing date. The pot life is 72 hours when unpacked at room temperature after removal from the cold room, including thawing time.

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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