

LINQSOL™ EMC-G274

Black epoxy molding compound



- Green molding compound
- Designed for photocoupler / optocoupler devices
- Excellent mechanical integrity

LINQSOL™ EMC-G274 is a halogen-free epoxy molding compound engineered for photocouplers and optocouplers. It offers excellent moldability (spiral flow of 95 cm at 175 °C), low moisture absorption (0.4% PCT 24 h), and superior mechanical strength (flexural strength of 140 MPa). With a glass transition of 140°C, it ensures reliability in high-stress, high-temperature environments. Its low ion content and high volume resistivity make it ideal for sensitive optoelectronic applications.

LINQSOL™ EMC-G274 guarantees strong performance and outstanding long-term reliability in demanding environments. This product is deliberately formulated without the inclusion of substances prohibited by the European Union RoHS and REACH. Overall, **EMC-G274** seamlessly integrates advanced material properties, safety compliance, and superior performance to deliver a reliable solution for semiconductor device encapsulation.

Specifications

Property	Value	Unit
General Properties		
Filler sieving size	55	µm
Specific gravity	2.00 ±0.02	–
Spiral flow at 175 °C	95 ±5%	cm
Chemical Properties		
Ion content		
Chloride (Cl ⁻) concentration	6 ±1	ppm
Sodium (Na ⁺) concentration	7 ±1	ppm
Water absorption (PCT 24 h)	0.4 ±0.05%	%
pH of extract	6.0 ±0.02	–
Electrical conductivity of extract	30 ±3	µS/cm
Mechanical Properties		
Flexural strength at 25 °C	140 ±5%	MPa
Flexural modulus at 25 °C	22.9 ±5%	GPa
Tab pull adhesion to Cu	13.5 ±8%	MPa
Electrical Properties		
Volume resistivity at 25 °C	9.0 × 10 ¹⁵	Ω · cm
Comparative tracking index	600	V

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Thermal Properties		
Glass transition temperature	140 ±5	°C
Coefficient of thermal expansion, α1	13	ppm/°C
Coefficient of thermal expansion, α2	45	ppm/°C
Gel time at 175 °C	30 ±5	s
Flammability rating	V-0	UL-94

Recommended mold parameters

Parameter	Value	Unit
Molding temperature	170–180	°C
Transfer pressure	40–70	kg _f /cm ²
Transfer time	10–20	s
Cure time at 175 °C	120–150	s
Post mold cure time at 175 °C	6–8	h

The curing conditions provided are recommended guidelines based on typical laboratory results. Actual curing parameters should be defined and validated by the user to ensure compatibility with specific materials, part geometries, and end-use requirements. It is the user's responsibility to optimize and confirm curing conditions that meet their performance and quality standards.

Processing Instructions

- Before use, let **LINQSOL™ EMC-G274** reach room temperature (23 ±5 °C) for 24 hours. Keep the bag unopened and stored in a dry location with a relative humidity of ≤50% during thawing to prevent moisture contamination.
- Use the materials within 72 hours after removing the container from cold storage.

Storage and Handling

LINQSOL EMC-G274 is available in pressed pellets in a wide range of sizes to meet specific customer needs. To ensure product integrity, keep it away from oxidizing materials. For long-term storage, maintain a cold environment. The shelf life when stored below 5 °C is 183 days.

The technical information presented in this document is provided for reference only and does not constitute a guarantee of specific properties or performance. Actual results may vary depending on individual conditions and application methods. Users are strongly advised to perform their own testing and validation to determine suitability for their intended use and compliance with relevant regulations.

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