

LINQSOL™ EMC-9012

Black epoxy molding compound



- Green epoxy molding compound
- Designed for Ball Grid Array (BGA) and Land Grid Array (LGA) packages
- Ultra low water absorption, low stress, and excellent reliability performance

LINQSOL™ EMC-9012 is a green epoxy molding compound specifically developed for the encapsulation of Ball Grid Array (BGA) and Land Grid Array (LGA) packages. Its long spiral flow at 175 °C satisfies the moldability requirement for BGA and LGA molding. **LINQSOL™ EMC-9012** has low modulus that meets low-stress requirements. Additionally, with a UL 94 V-0 flammability rating and ultra low water absorption, **EMC-9012** guarantees excellent performance and outstanding reliability. This product is deliberately formulated without the inclusion of substances prohibited by the European Union RoHS and REACH.

Overall, **LINQSOL™ EMC-9012** seamlessly integrates advanced material properties, safety compliance, and superior performance to deliver a reliable solution for semiconductor device encapsulation.

Cured properties

Property	Unit	9012
General Properties		
Color	–	Black
Filler content	%	89
Filler cut size	µm	55
Specific gravity	–	2.01
Spiral flow at 175 °C	cm	165
Chemical Properties		
Ion content		
Chloride (Cl ⁻) concentration	ppm	7
Sodium (Na ⁺) concentration	ppm	6
Moisture absorption at boiling	%	0.12
pH of extract	–	6.0
Electrical conductivity of extract	µS · cm ⁻¹	31
Mechanical Properties		
Flexural strength at 25°C	MPa	145
Flexural modulus at 25°C	GPa	24
Adhesion Strength to Cu at RT		
Before MSL3 Preconditioning	MPa	6.5
After MSL3 Preconditioning	MPa	6.4

Europe

Industrieweg 15E,
1566JN Assendelft
The Netherlands
Phone: +31 (20) 893 2224
Email: info@caplinq.com

Canada

80 Sirocco Crescent
Ottawa ON, K2S 2C9
Canada
Phone: +1 (613) 482-2215
Email: info@caplinq.com



North America

36927 Schoolcraft Rd
Livonia, MI 48150
United states
Phone: +1 (313) 558-8243
Email: info@caplinq.com

South East Asia

S-08-07 Persiaran Triangle
B Lepas, Penang 11900
Malaysia
Phone: +60(12)4302223
Email: info@caplinq.com

Property	Unit	9012
Thermal Properties		
Glass transition temperature	°C	133
Coefficient of thermal expansion, α_1	ppm/°C	8
Coefficient of thermal expansion, α_2	ppm/°C	35
Gel time at 175 °C	sec	45
Flammability	UL-94	V-0

The technical data presented above is intended for reference purposes only. Actual performance may vary based on specific applications and conditions. Users are advised to conduct their own testing and evaluation to ensure compatibility with their specific requirements.

Recommended mold parameters

Property	Unit	9012
Molding temperature	°C	170–190
Transfer pressure	kg/cm ²	40–90
Transfer time	sec	7–30
Cure time at 175 °C	sec	90–120
Post mold cure time at 175 °C	h	6–12

* Above values can be used for reference. Mold parameters can vary based on actual molding process conditions.

Processing Instructions

- Before use, let **LINQSOL™ EMC-9012** reach room temperature (23±5) 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-9012 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.

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.

Europe

Industrieweg 15E,
1566JN Assendelft
The Netherlands
Phone: +31 (20) 893 2224
Email: info@caplinq.com

Canada

80 Sirocco Crescent
Ottawa ON, K2S 2C9
Canada
Phone: +1 (613) 482-2215
Email: info@caplinq.com



North America

36927 Schoolcraft Rd
Livonia, MI 48150
United states
+1 (313) 558-8243
Email: info@caplinq.com

South East Asia

S-08-07 Persiaran Triangle
B Lepas, Penang 11900
Malaysia
Phone: +60(12)4302223
Email: info@caplinq.com