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OPTOLINQ **BMC-4200**

Black epoxy molding compound

- Exceptional moldability with long spiral flow
- Good thermal stability and excellent mechanical processability
- Excellent reliability

OPTOLINQ BMC-4200 is a specialized epoxy molding compound tailored for encapsulating optoelectronic devices, including LEDs. Its exceptional moldability, characterized by a long spiral flow, ensures precise and intricate molding. With good thermal stability, and excellent mechanical processability and reliability, **BMC-4200** provides dependable performance throughout production.

Cured properties[1]

Property	Value	Unit
Specific gravity	1.19±0.03	–
Hardness at 25 °C	80	Shore D
Gel time at 150 °C	20–50	s
Spiral flow at 150 °C	80–240	cm
Mold shrinkage	1.5	%
Glass transition temperature by TMA	115±10	°C
Coefficient of thermal expansion, α1	40–80	ppm/K
Coefficient of thermal expansion, α2	150–210	ppm/K
Flexural strength	120	MPa
Flexural modulus	3.0–3.5	GPa

[1] Samples were cured using the following parameters. In mold cure: 4 min at 150 °C, Post-mold cure: 4 h at 150 °C
[2] Sample thickness is 1 mm.

Recommended mold parameters

Parameter	Value	Unit
Preheat temperature	75–95	°C
Molding temperature	150–170	°C
Molding pressure	3–8	MPa
Transfer time at 165 °C	40–60	s
Cure time at 165 °C	2.5–4	min
Post mold cure time at 165 °C	3–4	h

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Processing Instructions

- Before use, allow **BMC-4200** to reach room temperature (20±5 °C, 40±15% RH) for a minimum of 24 hours for larger pellets and 12 hours for smaller ones, ensuring the bag remains unopened to prevent moisture contamination.
- Preheating can be performed using standard RF equipment. Preheating must be done slowly to achieve uniform temperature.
- Apply an outer releasing agent, such as silicones or fluorinated compounds, to the mold surface to facilitate easy release from the mold dies.
- Prior to molding with **BMC-4200** or any new material, the mold should be cleaned thoroughly. For proper mold conditioning, the initial three shots should be cured for 5–10 minutes. After this initial conditioning period, you can reduce the curing time to a level that provides sufficient hot hardness for effective release.

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.

Storage and Handling

OPTOLINQ BMC-4200 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, ideally at −10°C or lower. The shelf life under this condition is 6 months.

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