AzoCap™ BY AZON

Product Data Sheet

AzoCap 210 / Azo-Cast R1210

Electrical Encapsulation Compound

Product description

AzoCap 210 is a high-performance polyurethane encapsulation compound specifically engineered for electrical potting applications. Designed to protect sensitive electronic components from moisture, vibration, and thermal cycling, AzoCap cures to a tough, flexible material that maintains excellent adhesion to a variety of substrates.

AzoCap remains stable in liquid form and has an adjustable cure time, driving greater production efficiency. Ideal for use in automotive, marine, industrial, and LED lighting applications, AzoCap delivers long-lasting protection and reliability in demanding environments.

Table 1: Physical properties of uncured materials

	Azo-Cast R1210	AzoCap 210	Measurement
Appearance	clear yellow liquid	black liquid	
Specific gravity at 77°F (25°C)	1.160 ± 0.005	1.025 ± 0.005	
Viscosity at 77°F (25°C)	330 ± 100	1730 ± 100	centipoise

Table 2: Processing parameters*

	Value	Measurement
Ratio AzoCap 210 per Azo-Cast R1210 (weight)	100 / 66	grams
Ratio AzoCap 210 per Azo-Cast R1210 (volume)	100 / 71.4	milliliters
Azo-Cast R1210 temperature	25 (77)	degrees Celsius (Fahrenheit)
AzoCap 210 temperature	25 (77)	degrees Celsius (Fahrenheit)
Gel time (100 gram sample)	3 - 4	minutes
Tact free time (100 gram sample)	30 ± 10	minutes

*Gel time and tact free time may vary slightly due to changes in ambient conditions and chemical temperatures.

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Table 3: Physical properties of cured materials*

	Value	Test method
Tensile strength	3600 ± 200 psi	ASTM D-638
Elongation at break	200% +	ASTM D-638
Adhesion (Lap shear)		
Polycarbonate	>2000 psi	ASTM D-3163
Glass	>1000 psi	ASTM D-3163
Steel	>1000 psi	ASTM D-3163
Flammability	Passes	UL 94-V0
Mixture density	10.08 lb/gal (1.214 g/cc)	
Hardness (Shore D)	50 - 56	ASTM D-2240

*Typical values when cured for seven days at room temperature.

Storage and Handling

AzoCap 210 and Azo-Cast R1210 should be stored in clean, dry environments with consistent temperatures and adequate airflow. To prevent contamination from moisture and foreign materials, containers must remain tightly sealed and protected with an inert gas blanket when not in use.

Azo-Cast R1210 and AzoCap 210 should be stored between 50°F (10°C) and 95°F (35°C). Under these conditions, Azo-Cast will remain clear and stable for a minimum of six months, and AzoCap will remain in liquid form and have a shelf life of up to 12 months.

Both products are hygroscopic and must not be exposed to atmospheric moisture, as this can cause Azo-Cast R1210 to harden or result in foaming during the curing of AzoCap 210. To preserve material integrity, minimize moisture exposure throughout all stages of handling and storage.

Disposal

Care should be taken to protect our environment. The user of this product has the responsibility to dispose of unused material or residue in compliance with local governmental guidelines regarding the disposal of nonhazardous and hazardous waste.

Health and safety

Azo-Cast R1210 is isocyanate-terminated and may cause respiratory and skin irritation. Safety data sheets and product labels must be reviewed prior to use or handling the material. Avoid breathing of vapors, prolonged contact with the skin, contact with open breaks in the skin and ingestion. Use with adequate ventilation.