Azo-Cap™ 210 / Azo-Cast™ R1210

Potting / Electrical Encapsulation Compound

Product Data Sheet

The Azo-Cap™ 210 / Azo-Cast™ R1210 polyurethane system is specifically designed to perform in electrical potting applications. The Azo-Cap 210 reactive resin is cast with Azo-Cast R1210. Combined in the prescribed ratio, they react to become an insulating material that passes UL 94-V0 Flammability Testing.

General uses

- electrical potting applications

Table 1: Physical properties of uncured materials

	Azo-Cast™ R1210	Azo-Cap™ 210	Measurement
Appearance	clear yellow liquid	black liquid	
Specific gravity at 77°F (25°C)	1.160 ± 0.005	1.25 ± 0.005	
Viscosity at 77°F (25°C)	330 ± 100	1730 ± 100	centipoise

Table 2: Processing parameters

	Value	Measurement
Ratio Azo-Cap™ 210 per Azo-Cast™ R1210 (by weight)	100 / 66	grams
Ratio Azo-Cap™ 210 per Azo-Cast™ R1210 (by volume)	100 / 71.4	milliliters
Azo-Cast™ R1210 temperature	77 (25)	degrees Fahrenheit (Celsius)
Azo-Cap™ 210 temperature	77 (25)	degrees Fahrenheit (Celsius)
Gel time (100 gram sample)	3’ 00” - 4’00”	minutes

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Table 3: Physical properties of cured materials*

		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)	55 - 60	ASTM D-2240

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

Storage and handling

Azo-Cast R1210 should be stored in dry areas with a constant temperature and good airflow. Containers should be kept tightly closed and blanketed with an inert atmosphere when not in use to prevent contamination by moisture and foreign materials. Store Azo-Cast R11210 between 50°F (10°C) and 95°F (35°C) to maximize storage life. Azo-Cast R1210 will remain clear and constant under these conditions for at least six months.

Azo-Cap 210 should be stored in dry areas away from any exposure to moisture. Containers should be kept tightly closed and blanketed with an inert atmosphere when not in use to prevent contamination by moisture and foreign materials. Store unused materials at temperatures between 86F and 104F (30C and 40C) to maximize storage life and maintain as a liquid. When stored properly, Azo-Cap 210 has a shelf life of 12 months.

Azo-Cast R1210 and Azo-Cap 210 should not be left open to atmospheric environments, as they tend to absorb moisture. This moisture will result in the hardening of the Azo-Cast R1210 or foaming in the cured product. Ensure minimization of exposure to moisture.

Health and safety

Azo-Cast R1210 is isocyanate-terminated and may cause respiratory and skin irritation. Users should review the Material Safety Data Sheet before using.

Packaging

Azo-Cast R1210 is packaged in 55-gallon drums at 500 pounds net and five-gallon pails at 45 pounds net. Azo-Cap 210 is packaged in 55-gallon drums at 550 pounds net and five-gallon pails at 50 pounds net.