

Rapid Cast / High Heat Resistance / Black

Rigid polyurethane system

Key Properties

- Excellent physical properties after RT cure
- Free of mercury, MOCA or TDI

Applications

- Formulated for room temperature meter-mix dispensing systems and short mold cycle times

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	90
		pbv	100	100
Density	ASTM D-792	g/cm ³	ca. 1.20	ca. 1.08
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 100	ca. 2,000

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 700
Gel time at 77°F (25°C)		sec	40-60
Demold time at 77°F (25°C)		min	20-30

Cured / Mechanical Properties (approximate values)

			Cure 1	Cure 2
Cure 1: 24 hours at 77°F				
Cure 2: 7 days at 77°F				
Aspect	visual		Black	Black
Density	ASTM D-792	g/cm ³	1.12	1.12
Shore hardness D	ASTM D-2240		80-90	80-90
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	263 (128)	284 (140)
Tensile strength	ASTM D-638	psi	9,000	9,400
Elongation at Break	ASTM D-695	%	5	5
Compressive strength	ASTM D-638	psi	9,200	9,600
Compressive modulus	ASTM D-638	psi	580,000	600,000
Flexural strength	ASTM D-790	psi	12,700	12,700
Flexural modulus	ASTM D-790	psi	270,000	350,000
Notched Izod	ASTM D-256	ft·lbf/in	0.4	0.5
Linear shrinkage	ASTM D-2566	in/in	0.002-0.006	0.002-0.006

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The processing and material temperature should be between 68-77°F (20-25°C).

RC-0510 can be used at room temperature. Meter-mix equipment is recommended due to the short working life of the formulation. The hardener component will separate during shipping / storage.

Agitate the hardener and resin before use to ensure that the formula is homogeneous.

Packaging

RC-0510 Quart Kit	3.8 lbs.
RC-0510 1 Gal. Kit	15.2 lbs.
RC-0510 Gal. Kit	76 lbs.
RC-0510 Drum Kit	855 lbs.

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures 59-86°F (15°C to 30°C). If properly stored the products have the shelf-life indicated on the product label.

Partly used containers should always be sealed appropriately and used up as soon as possible.

Handling Precautions

Good workplace ventilation is to be ensured during processing. At the same time, the employer's liability insurance association's industrial hygiene safety regulations regarding the handling of reaction resins and their hardeners are to be observed. Please take heed of the appropriate safety data sheets.
