

Rapid Cast / FDA / White

Rigid polyurethane system

Key Properties

- Excellent physical properties after RT cure
- Free of mercury, MOCA or TDI
- FDA Approved raw materials CF21.177.1680

Applications

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

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	88
		pbv	100	100
Density	ASTM D-792	g/cm ³	ca. 1.21	ca. 1.07
Viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 600	ca. 2,000

			Mixture
Mix viscosity at 77°F (25°C)	ASTM D-2393	cP	ca. 1,200
Gel time at 77°F (25°C)		sec	50-60
Demold time at 77°F (25°C)		min	10-20

Cured / Mechanical Properties (approximate values)

Cure 1: 24 hours at 77°F Cure 2: 7 days at 77°F			Cure 1	Cure 2
Aspect	visual		White	White
Density	ASTM D-792	g/cm ³	1.12	1.12
Shore hardness D	ASTM D-2240		75-85	75-85
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	185 (85)	185 (85)
Tensile strength	ASTM D-638	psi	6,200	7,000
Elongation at Break	ASTM D-695	%	10	5
Flexural strength	ASTM D-790	psi	9,800	12,100
Flexural modulus	ASTM D-790	psi	230,000	275,000
Notched Izod	ASTM D-256	ft-lbf/in	0.8	1.1
Linear shrinkage	ASTM D-2566	in/in	0.002-0.005	0.002-0.005

Processing

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

RC-0400 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-0400 Quart Kit	3.76 lbs.
RC-0400 1 Gal. Kit	15.04 lbs.
RC-0400 Gal. Kit	75.2 lbs.
RC-0400 Drum Kit	846 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.
