

Low Viscosity / Ultra Clear

Water clear, rigid polyurethane

Key Properties

- Excellent physical properties
- Free of mercury, MOCA or TDI
- Low viscosity for excellent flow rates

Applications

- For room temperature hand-batch or vacuum assisted casting methods
- Applications with thin wall sections

Processing Properties

			Resin (Isocyanate)	Hardener (Polyol)
Mix ratio		pbw	100	50
		pbv	100	55
Density	ASTM D-792	g/cm ³	ca. 1.16	ca. 1.05
Viscosity at 100°F (38°C)	ASTM D-2393	cP	ca. 900	ca. 725

			Mixture
Mix viscosity at 100°F (38°C)	ASTM D-2393	cP	ca. 750
Gel time at 77°F (25°C)		min	15-23
Demold time at 77°F (25°C)		h	4-8

Cured / Mechanical Properties (approximate values)

Cure 1: 24 hours at 77°F + 16 hours at 180°F Cure 2: 7 days at 77°F			Cure 1	Cure 2
Aspect	visual		Water Clear	Water Clear
Density	ASTM D-792	g/cm ³	1.08	1.08
Shore hardness D	ASTM D-2240		80-86	80-86
Deflection temperature, HDT (66psi)	ASTM D-648	°F (°C)	158 (70)	120 (49)
Tensile strength	ASTM D-638	psi	9,800	7,000
Elongation at Break	ASTM D-638	%	7	3
Flexural strength	ASTM D-790	psi	16,700	16,500
Flexural modulus	ASTM D-790	psi	365,000	385,000
Notched Izod	ASTM D-256	ft-lbf/in	1	0.4
Linear shrinkage	ASTM D-2566	in/in	0.005-0.010	0.005-0.010

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

Demold times are achieved by post curing for 1 hour at 150°F.

For best results, de-air the material prior to casting, then pressurize to 60 psi until cured. During the initial mix, the material will turn cloudy in color. As it becomes more compatible, it will phase-change back to clear. This will take approximately two to three minutes depending upon temperature.

RAMPF Group Inc.'s water clear rigid products may be inhibited by certain platinum based silicone rubbers. It is recommended that a test sample be prepared to verify compatibility.

Packaging

OC-5274 Quart Kit	3 lbs.
OC-5274 1 Gal. Kit	12 lbs.
OC-5274 5 Gal. Kit	60 lbs.
OC-5274 Drum Kit	675 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.
