



International Polyurethane Systems Inc.

P.O. Box 3309 * 5590 - 46th Ave. SE
Salmon Arm, B.C. V1E 4S1 * Canada

Tel 250-832-5142 Fax 250-832-9338

Material Data Sheet Casting Resin CST101/3

Product Description:

A 100 % solids, two component, semi-rigid, polyurethane elastomer, based on aromatic MDI. This formulation does not contain any solvents or abrasive fillers and has excellent mechanical properties. Due to this resin's high purity, it is highly resistant to humidity related problems. It can also be used as a protective membrane for steel, wood, geotextiles, polyurethane foam and expanded polystyrene foam. It has a hardness range of 88-92 Shore A.

Chemical Properties:

Properties	Unit	Test Method	Typical Values		
			Polyol	Isocyanate	Mixture
Appearance			off-white	clear	off-white
Density	g/cm ³	ASTM-D 1475	1.03	1.18	1.08
Viscosity @ 22°C (Brookfield DV-2+ @ 20RPM Spindle 3)	cP	ASTM-D 4878	1000 ± 200	800 ± 250	700 ± 200
Mixing Ratio @ 22°C	by weight		100	50	
Potlife @ 22°C	s				30 - 45
Tackfree Time @ 22°C	s				60

Physical Properties:

Properties	Unit	Test Method	Typical Values
			Mixture
Shore Hardness	shore A	ASTM-D 2440	85 - 95
Tensile Strength (7 days)	psi	ASTM-D 412	2200 ± 100
Elongation @ Break (7 days)	%	ASTM-D 412	200 ± 50
Taber Abrasion (CS-17 wheel)	mg lost/1000 cycles	ASTM-D 4060	24
Water Absorption (24 hrs @ 21°C)	%	ASTM-D 471	Approx. < 1 %
Acid/Base Resistance			Very Good

Application:

Processing is at room temperature for use with low pressure plural equipment.

Storage:

The materials must be protected against humidity and stored at 20 - 25 °C (75 - 77 °F) for optimum shelf life of 6 months.

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