



International Polyurethane Systems Inc.

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Material Data Sheet Polyurea P2001/5

Product Description:

A 100 % solids, two component, semi-rigid, high performance polyurea elastomer based on aromatic MDI. This formulation is based on amine polyols for high pressure spray equipment and has a fast cure profile. This system has been modified slower to impart better adhesion, and surface appearance. It can be used for various industrial applications such as containment fields, concrete restoration, pipelines or various projects requiring a hardness range of 50 - 60 Shore D.

Chemical Properties:

Properties	Unit	Test Method	Typical Values		
			Polyol	Isocyanate	Mixture
Appearance			Amber	clear	amber
Density	g/cm ³	ASTM-D 1475	1.01	1.14	1.08
Viscosity @ 22°C (Brookfield DV-2+ @ 20RPM Spindle 3)	cP	ASTM-D 4878	500 ± 200	800 ± 250	700 ± 200
Mixing Ratio @ 22°C	by volume		100	100	
Potlife @ 22°C	s				6 - 10

Physical Properties:

Properties	Unit	Test Method	Typical Values
			Mixture
Shore Hardness	shore D	ASTM-D 2440	50 - 60
Tensile Strength (7 days)	psi	ASTM-D 412	2200 ± 300
Elongation @ Break (7 days)	%	ASTM-D 412	220 ± 50
Water Absorption (24 hrs @ 21°C)	%	ASTM-D 471	Approx. < 1%
Tear Strength (Die C)	pli	ASTM-D 624C	400 ± 50
Modulus (100%, 200%)	psi	ASTM-D 412	1200 , 1900 ± 300
Acid/Base Resistance			Very Good

Application:

Processing temperatures should be approximately 63 - 74 °C (145 - 165 °F) and at least 1800 - 2200 psi pump pressure to achieve proper mixing using high 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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