

InstaCote™ Systems

InstaCote Polyurea Systems

Technical Data InstaCote ML-2 (soft)

Typical Physical Properties

WET

Solids

By weight	100%		
By volume	100%		
V.O.C.	0.0 lbs./gal		
Coverage	Thickness	Area	Usage
	30 mils. (1/32")	1 sq..ft.	0.14 lbs.
	60 mils. (1/16")	1 sq..ft.	0.28 lbs..
	90 mils. (3/32")	1 sq..ft.	0.42 lbs..
	120 mils. (1/8")	1 sq..ft.	0.56 lbs.
	180 mils. (3/16")	1 sq..ft.	0.84 lbs..
Weight per gallon	9 lbs.. combined		

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Viscosity

A Component (Isocyanate)	1000 s/cps @ 25°C
B Component (Amine polymer)	600-800 s/cps @ 25°C

Cure Times

Gel	4 seconds
Tack Free	60 seconds
Post Cure	24 hours
Recoat	within 3 to 6 hours
Shelf Life	Indefinite
Clean Up Solvent	Xylene, MEK, Isopropyl alcohol, Methyl Pyrolidone
Thinner	<u>Never recommended</u>

DRY

Stress/ Tensile Strength	1730 - 1800 psi
Elongation @ 25° C (77° F)	465%
Hardness	40 Shore D
100% Modulus	670 psi
Tear Strength Ply	300 PLI
Thermal Shock	-65° F with no effect

Physical Properties

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Average Thickness of Material	0.072 inches
Elongation	185%
Elongation of Break (adv..)	106mm
Pounds to Break (adv..)	156 pounds
Impact Embrittlement testing (ASTM D 746)	-36°F to -40°F
Gardner Impact	320 inches/pounds
Impact, Notched	4.90 ft-lbs./inch
Tensile strength	1845 psi
Shore D Hardness	52
	45
Flexural Modulus	
158°F	20,810 psi
77°F	38,010 psi
-20°F	100,910 psi
Thermal Shock	
-65°F, 6 hours	no effect
Heat Sag	0.02 inches
Spraying Gel Time	2 seconds
Surface at 20 seconds	dry
UV Resistance	good
Chemical Resistance (ASTM D 1239)	
Benzene	solubility low to nil
(material absorbed by the elastomer but was reversible)	
Break through test for Benzene	
(under zero pressure elastomer did not allow transmission of benzene, in spite of swelling and softening)	

* Millage of the final elastomer can also effect properties.

Chemical Resistance

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Acetone	no effect
Antifreeze	no effect
Break Fluid	slight effect
Butanol	slight effect
DEA - 85%	no effect
Diesel Fuel	no effect
DMF	not recommended
Ethylene Glycol	no effect
Gasoline	no effect
Washer Fluid	no effect
Heptane	no effect
Hydraulic oil	no effect
Jet Fuel	no effect
Kerosene	no effect
Methanol	no effect
Propylene Glycol	no effect
Propylene Carbonate	moderate effect
N-100/water	no effect
N-40/water	no effect
Solvent 140	no effect
Sulfuric Acid Conc..	Not recommended
Sulfuric Acid 10%	slight effect
TEG	no effect
Vm&p Naptha	no effect

These materials were subject to a spot test. The elastomer was in contact for a period of 7 days at 77°F.

Because these tests are a crude indicator of the performance one may expect the resistance is a function of many individual factors. The end user needs to test the material for his own use to be assured it will perform properly in a specific application.