CONATHANE® EN-1556

Polyurethane

Cytec Industries Inc.

Message:

CONATHANE EN-1556 is a polyether based, non-MBOCA polyurethane resin system primarily intended for use as a molding, encapsulating, and potting compound for harness breakouts, Watertight electrical connectors, cables, cable end seals, printed circuitry, and other electrical components. The system also has use in the casting or molding of mechanical parts and as a lining material for pumps, chutes, and conveyors Where outstanding abrasion resistance is a necessity.
CONATHANE EN-1556 may be cured at room or elevated temperatures. CONATHANE EN-1556, When fully cured, is a tough, cold-flow resistant elastomer that has good resistance to oils, gasoline, JP-4 fuel, Water, and sea Water and also provides outstanding protection against corrosion or contamination. The system is funginert When tested in accordance With MIL-I-46058C and ASTM G-21 and meets or exceeds all of the requirements of MIL-M-24041 C.
Three primers have been developed for use in bonding CONATHANE EN-1556 to metals, neoprene, and polyvinyl chloride during the curing process. CONAP® AD-1146 is recommended for metals, CONAP® PR-1167 for neoprene, and CONAP® AD-1 161 for polyvinyl chloride.

General Information	
Features	Gasoline Resistance
	Good Abrasion Resistance
	Good Corrosion Resistance
	Oil Resistant
Uses	Connectors
	Conveyor Parts
	Electrical/Electronic Applications
	Liners
	Pump Parts
Agency Ratings	ASTM G 21
	MIL I-46058C
	MIL M-24041C Type 1
Appearance	Amber
	Black
Forms	Liquid
Processing Method	Casting
	Encapsulating
	Potting

Physical	Nominal Value	Unit
Specific Gravity		
-- [1]	1.03	g/cm³
-- [2]	1.05	g/cm³

Water Absorption - 24 hour immersion in D.I. water @ 200°F	0.33	%	
Shrinkage - Volume	3.6	%	
Fungal Resistance	Non-nutrient		
Isocyanate Content [3]	5.2	%	
Non-Volatile Content - Mixed System	100	%	
Hardness	**Nominal Value**	**Unit**	
Durometer Hardness (Shore A)	80		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus - 300% Secant	9.65	MPa	Internal Method
Tensile Strength	34.5	MPa	
Tensile Elongation (Break)	400	%	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength [4]	35.0	kN/m	
Compression Set (70°C, 22 hr)	35	%	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			
-- [5]	3.5E+10	ohms	
-- [6]	5.2E+13	ohms	
Volume Resistivity			
25°C	2.4E+12	ohms·cm	
121°C	9.6E+10	ohms·cm	
Dielectric Strength (3.18 mm)	14	kV/mm	
Dielectric Constant			ASTM D150
25°C, 1 kHz	6.12		
25°C, 1 MHz	5.06		
Arc Resistance	> 120	sec	
Insulation Resistance			
25°C	9.0E+11	ohms	
121°C	4.2E+9	ohms	
Thermoset	**Nominal Value**	**Unit**	
Thermoset Components			
Hardener	Mix Ratio by Weight: 33		
Resin	Mix Ratio by Weight: 100		
Thermoset Mix Viscosity			
25°C [7]	3000	cP	
25°C [8]	18000	cP	

NOTE	
1.	Hardener
2.	Mix
3.	Resin
4.	Die C

5.	250°F
6.	77°F
7.	Hardener
8.	Resin

Recommended distributors for this material

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