CONATHANE® EN-1554

Polyurethane

Cytec Industries Inc.

Message:

CONATHANE EN-1554 is a polyether based 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 utility 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-1554 may be cured at room or elevated temperatures. CONATHANE EN-1554, when fully cured, is a tough, cold-flow resistant elastomer that has good resistance to oils, gasoline, JP-4 fuel, water, and seawater and also provides outstanding protection against corrosion or contamination. The system is funginert when tested in accordance with MIL-E-5262C and MIL-STD-810B.
Three primers have been developed for use in bonding EN-1554 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-1161 for polyvinyl chloride.

General Information	
Features	Gasoline Resistance
	Good Abrasion Resistance
	Good Corrosion Resistance
	Good Toughness
	Low Temperature Flexibility
	Moisture Resistant
	Oil Resistant
Uses	Connectors
	Conveyor Parts
	Electrical/Electronic Applications
	Pump Parts
Agency Ratings	MIL E-5272C
	MIL M-24041C Type 1
	MIL Std. 810B
Appearance	Amber
	Black
Forms	Liquid
Processing Method	Casting
	Encapsulating
	Potting

Physical	Nominal Value	Unit
Specific Gravity		
-- [1]	1.09	g/cm³

-- [2]	0.998 to 1.20	g/cm³	
Water Absorption - 24 hour immersion in D.I. water @ 200°F	0.33	%	
Shrinkage - Volume	4.5	%	
Fungal Resistance	Non-nutrient		
Isocyanate Content [3]	4.9 to 5.3	%	
Non-Volatile Content - Mixed System	100	%	
Hardness	**Nominal Value**	**Unit**	
Durometer Hardness (Shore A)	84 to 90		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus - 300% Secant	7.58	MPa	Internal Method
Tensile Strength	31.0	MPa	
Tensile Elongation (Break)	550	%	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength [4]	61.3	kN/m	
Compression Set (70°C, 22 hr)	50	%	
Aging	**Nominal Value**	**Unit**	
Change in Tensile Strength (70°C, 336 hr, in Water)	-11	%	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity			
-- [5]	2.5E+10	ohms	
-- [6]	2.5E+12	ohms	
Volume Resistivity			
25°C	5.1E+12	ohms·cm	
121°C	6.3E+10	ohms·cm	
Dielectric Strength			
1.27 mm	24	kV/mm	
3.18 mm	12	kV/mm	
Dielectric Constant			ASTM D150
25°C, 1 kHz	6.63		
25°C, 1 MHz	5.23		
Arc Resistance	120	sec	
Insulation Resistance (25°C)	5.8E+11	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]	15000	cP	
25°C [8]	20000	cP	
NOTE			
1.	Mix		

2.	Hardener
3.	Resin
4.	Die C
5.	250°F
6.	77°F
7.	Hardener
8.	Resin

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China