CONATHANE® EN-14

Polyurethane

Cytec Industries Inc.

Message:

CONATHANE EN-14, or EN-14 Black, is a two-component, unfilled, low viscosity, fast-gelling, fast-curing, flexible polyurethane elastomer system designed for potting and encapsulation of electrical and electronic assemblies. CONATHANE EN-14 is a non-mercury version of CONATHANE® DPEN 8536. The cured system features excellent water resistance, thermal shock resistance, and electrical properties.
The initial low viscosity of the system allows good penetration into fine windings. CONATHANE EN-14 is fully transparent and can easily be cut to remove defective components. Repairs can be made by application of more of the liquid system.
CONATHANE EN-14 is particularly recommended for potting and encapsulating strain and heat sensitive devices in modules, connectors, and units required to operate in the temperature range of -65°C to 130°C. It also has shown utility as a conformal coating and can be applied by casting, spraying, or brushing. Airless spray equipment can be used effectively.

General Information	
UL YellowCard	E69804-249046
Features	Fast Cure Fast Gel Good Electrical Properties Good Flexibility Good Thermal Shock Resistance Hydrolytically Stable Low Viscosity
Uses	Connectors Electrical Parts Electrical/Electronic Applications
Appearance	Amber Black Clear/Transparent
Forms	Liquid
Processing Method	Casting Encapsulating Potting

Physical	Nominal Value	Unit
Specific Gravity		
-- [1]	0.968	g/cm³
-- [2]	1.04	g/cm³
-- [3]	1.10	g/cm³
Water Absorption		

24 Hrs. : 25°C	0.40	%	
7 days : 25°C	0.79	%	
Gel Time (25°C)	20.0	min	
Cure Time			
25°C	3.0 to 4.0	day	
60°C	0.1	day	
Thermal Shock Test - 10 cycles, -65°C to 130°C	Passes		
Work Life (25°C)	15.0	min	
Linear Shrinkage	0.31	%	
Hardness	**Nominal Value**	**Unit**	
Durometer Hardness (Shore A)	65		
Mechanical	**Nominal Value**	**Unit**	
Tensile Strength	4.83	MPa	
Tensile Elongation (Break)	110	%	
Elastomers	**Nominal Value**	**Unit**	
Tear Strength	6.13	kN/m	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity [4]	1.0E+13	ohms	
Volume Resistivity (25°C)	3.0E+13	ohms·cm	
Dielectric Strength	> 20	kV/mm	
Dielectric Constant			
25°C, 100 Hz	5.71		
25°C, 1 MHz	3.42		
Dissipation Factor			
25°C, 100 Hz	0.12		
25°C, 1 MHz	0.038		
Arc Resistance	> 120	sec	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	V-2		UL 94
Thermoset	**Nominal Value**	**Unit**	
Thermoset Components			
Hardener	Mix Ratio by Weight: 90		
Resin	Mix Ratio by Weight: 100		
Thermoset Mix Viscosity			
25°C [5]	1200	cP	
25°C [6]	1000	cP	
25°C [7]	1500	cP	
NOTE			
1.	Hardener		
2.	Mixed		
3.	Resin		

4.	25°C
5.	Mixed
6.	Hardener
7.	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