

CONAP® EN-5322

Polyurethane

Cytec Industries Inc.

Message:

CONAP EN-5322 is a filled, flame resistant polyurethane resin formulated for general purpose electrical/electronic potting, casting, and encapsulation. When tested in accordance with UL-94, flame resistance ratings of 94V-0 were obtained. CONAP EN-5322 has excellent handling properties at room temperature. Cure can be accomplished at room or elevated temperatures.

General Information	
Features	Filled
	Flame Retardant
Uses	Electrical/Electronic Applications
	General Purpose
Appearance	Amber
	Black
	Tan
Processing Method	Casting
	Encapsulating
	Potting

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
-- ¹	1.22	g/cm ³	
-- ²	1.65	g/cm ³	
-- ³	1.69	g/cm ³	
Water Absorption (25°C, 24 hr)	0.19	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	70		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	11.0	MPa	ASTM D638
Tensile Elongation (Break)	35 to 40	%	ASTM D638
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow ⁴	1.5E-4	cm/cm/°C	Internal Method
Thermal Conductivity ⁵	0.29	W/m/K	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	ASTM D257
Volume Resistivity (25°C)	1.6E+14	ohms · cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149

Dielectric Constant (25°C, 1 kHz)	4.30		ASTM D150
Dissipation Factor (25°C, 1 kHz)	0.020		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-0		UL 94
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Hardener	Mix Ratio by Weight: 100		
Resin	Mix Ratio by Weight: 16		
Thermoset Mix Viscosity (25°C)	6000	cP	
Additional Information	Nominal Value	Unit	Test Method
Weight Loss on Heating ⁶	0.63	%	
Linear Shrinkage	0.65	%	Internal Method
NOTE			
1.	Resin		
2.	Mixed System		
3.	Hardener		
4.	MIL-16923E		
5.	MIL-16923E		
6.	7 days @ 130°C		

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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

