Techsil® EP25485

Epoxy; Epoxide

Techsil Limited

Message:

Techsil EP25485 is a low viscosity, thermally conductive flame retardant potting and encapsulating compound. The mixed system has a long usable life and may be hot or cold cured. The system exhibits a good surface finish, high electrical strength, excellent thermal conductivity and low cure shrinkage. EP25485 is compatible with most circuit board components and materials over a wide temperature range. Adhesion is excellent to most plastics and substrates. The combination of properties and the ease of use of the material will lend itself to a wide range of applications. The flame-retardants in EP25485 are of a non-halogen type and do not contain heavy metals. It is available in bulk, kits and twinpack form. The standard colour is Black but other colours are available on request.
Features:
Excellent thermal conductivity
High electrical insulating characteristics
Non-toxic
Low shrinkage
High adhesion
Flame retardant to UL94-V0
Good chemical and water resistance
RoHS and WEEE compliant

General Information	
Additive	Flame retardancy
Features	Heat conduction
	Low viscosity
	Moisture resistance
	Insulation
	Good adhesion
	Good chemical resistance
	Low shrinkage
	Non-toxic
	Halogen-free
	Excellent appearance
	Flame retardancy
Uses	Encapsulant
Agency Ratings	EC 1907/2006 (REACH)
	EU 2002/96/EC (WEEE)
RoHS Compliance	RoHS compliance
Appearance	Black
Forms	Liquid
Processing Method	Enclosure
	potting

Physical	Nominal Value	Unit

Contractility-Volume	0.30	%	
Heat Deflection Temperature	80	°C	
Loss Tangent [1]	0.0450		
Operating Temperature	-40 - 150	°C	
Peak Exotherm (25°C)	50.0		
Thermal	**Nominal Value**	**Unit**	
CLTE - Flow	3.5E-5 - 4.5E-5	cm/cm/°C	
Thermal Conductivity	1.2	W/m/K	
Flammability	**Nominal Value**		**Test Method**
Flame Rating	V-0		UL 94
Uncured Properties	**Nominal Value**	**Unit**	
Color			
-- [2]	Black		
-- [3]	Clear/Transparent		
Mix Ratio by Weight (PBW)			
Resin	7.8		
Hardener	1.0		
Mix Ratio by Volume (PBV)			
Resin	4.0		
Hardener	1.0		
Density			
-- [4]	0.930	g/cm³	
-- [5]	1.64	g/cm³	
-- [6]	1.82	g/cm³	
Viscosity			
25°C [7]	0.10	Pa·s	
25°C [8]	3.0	Pa·s	
25°C [9]	25	Pa·s	
Curing Time			
80°C	4.0	hr	
60°C	6.0	hr	
25°C	1.7E+2	hr	
Gel Time (25°C)	3.6E+2	min	
Pot Life (25°C)	120	min	
Cured Properties	**Nominal Value**	**Unit**	
Water Absorption [10] (20°C)	0.50	%	
Shore Hardness (Shore D)	85		
Tensile Strength	65.0	MPa	
Tensile Elongation at Break	1.0 - 3.0	%	
Compression Strength	80.0	MPa	
Electric strength	18	kV/mm	
Relative Permittivity (50 Hz)	4.99		

Volume Resistivity	12	ohms·cm

NOTE	
1.	50 Hz
2.	Resin
3.	Hardener
4.	Hardener
5.	Mixed
6.	Resin
7.	Hardener
8.	Mixed
9.	Resin
10.	30 days

Recommended distributors for this material

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