

TG4040-2K

Thermally Conductive Liquid Gap Filling Material



Description

TG4040-2K is a thermally conductive, liquid gap filling material. The product is supplied as two components which can be cured at room temperature or at an elevated temperature to give excellent thermal and mechanical performance. TG4040-2K offers an excellent solution for the thermal management of fragile components or those where surface topography would prevent the use of conventional materials. Upon curing the material offers excellent thermal performance and also reduces stresses due to CTE mismatches.

Applications

Automotive electronics
Fibre optic telecommunications equipment
Consumer Electronics

Storage

TG4040-2K has a shelf life of 12 months from the date of manufacture, as indicated by the lot number, when stored in the original unopened container.

Properties

Property	TG4040-2K	Unit	Tolerance	Test Method
Colour	Blue	-	-	Visual
Thermal Conductivity	3.5	W/mK	-	ASTM D5470
Volume Resistivity	10^{12}	Ohm-cm	-	ASTM D257
Density	3.0	g/cm ³	-	ASTM D792
Operating Temperature	20 to 30	°C	-	-
Working Temperature	-50 to 200	°C	-	-
Working Temperature (short term)	288	°C	-	-
Flame Rating	V-0	-	-	UL 94
Hardness	40	-	-	ASTM D2240
Viscosity	200	pas	-	ASTM D2196
Pot Life @ 25°C	60	Minutes	-	-
Cure Time @ 25°C	90-180	Minutes	-	-
Cure Time @ 100°C	3	Minutes	-	-
Cure Time @ 150°C	1	Minutes	-	-

Reliability

Thermal Impedance	Initial	250 hr	500 hr	1000 hr
125°C Aging	0.17	0.19	0.18	0.18
85°C / 85% RH	0.17	0.18	0.18	0.19