Thermal Management Solutions

Technical Data Sheet



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TCOR

Approvals

Thermally Conductive RTV (Oxime)

TCOR is a single component, 100% solids, low odour silicone RTV which cures upon exposure to atmospheric moisture. It has been designed to fill the gap between device and heat sink, thus reducing the thermal resistance. It can be applied around components and power resistors to dissipate excess heat to heat sinks, avoiding any potential overheating and subsequent failures. It can also be used as a low bond strength adhesive, sealant or gasketing compound.

- Higher bond strength than standard RTVs; can be used as a sealant or thermal adhesive
- High thermal conductivity; combines adhesive properties with efficiency of heat dissipation
- Very wide operating temperature range; combines properties required for the automotive market

Yes

• Single component, non-slump; ideal for applications requiring a higher viscosity product

RoHS Compliant (2002/95/EC):

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Typical Properties	Colour:	White	
	Viscosity @ 1rpm (Pa s):	140-150	
	Consistency:	Non-Slump Paste	
	Density @ 20°C (g/ml):	2.3	
	Shrinkage on Cure	>0.2%	
	Skin Forming Rate*:	10-15 minutes	
	Cure Time @ 20°C*:	24 hours	
	*Curing rate and skin forming is dependent upon ambient conditions of temperature and hur		
Cured Properties:	Thermal Conductivity:	1.8 W/m.K	
	Temperature Range:	-50 to +230°C	
	Maximum Operating Temperature (30mins):	+250°C	
	Shore Hardness:	A75	
	Tensile Strength:	2 MPa	
	Peel Strength:	>4 Kgf (aluminium)	
	Tear Strength:	1.52 Kgf	
	Breaking Strength:	4.30 Kgf	
	Elongation at Break:	300%	
	Dielectric Strength:	>8 kV/mm	
	Electrical Insulation:	1 x 10 ¹⁴ Ohm/cm	

Description	<u>Packaging</u>	Order Code	Shelf Life
Thermally Conductive RTV (Oxime) Dispensing Gun for 75ml Syringe	75ml Syringe	TCOR75S	12 months
	1 Unit	TCRGUNB	Not Applicable

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

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Directions for Use

Surfaces must be clean and dry and free from grease, dust and contaminants. Electrolube manufacture a range of solvent and water based cleaning solutions for the preparation of surfaces prior to application. Electrolube TCR GUN is a dispensing method for use with TCOR75S. The pack fits inside the dispensing unit; a trigger is pulled which forces out the product, offering efficient and accurate dispensing of TCOR75S.

TCOR is a moisture curing system, releasing ethanol upon cure. Relative humidity above 50% is preferred for curing. The use of elevated temperatures will not increase the speed of cure and is not recommended.

TCOR has a reasonable bond strength for and can be used for adhesive applications. A lower bond strength RTV is also available from Electrolube, under the product code TCER.

Additional Information

There are many methods of measuring thermal conductivity, resulting in large variances in results. Electrolube utilise a heat flow method which takes into account the surface resistance of the test substrate, thus offering highly accurate results of true thermal conductivity. Some alternative methods do not account for such surface resistance and can create the illusion of higher thermal conductivity. Therefore, when comparing thermal conductivity measurements it is important to know what test method has been utilised. For more information please contact the Electrolube Technical Department.

The rate at which heat flows is dependent on the temperature differential, the thickness and uniformity of the layer, and the thermal conductivity of the material. Products with the same comparable thermal conductivity value may have very different efficiencies of heat transfer in the end application depending on how successfully a thin even film can be applied.

A full range of heat transfer products are available from Electrolube: standard and highly thermal conductive pastes (HTC, HTSP, etc.), gap filling materials (HTCPX), epoxy adhesives (TBS) and encapsulation resins (ER2220, UR5633, SC2003).

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Other Similar products are found below:

TCRGUNB ER2220RP250G GP300S GP500S HTCX35SL EAD200D PRS400D TPM350 SCP26G 2K300KIT DCT01L SWAJ05L

ARW300 DCE0.75L SSS500ML SYR20ML GP500SL ER2218RP250G ER2224 UR5638 CCRG01L SPG900G DEI05L ER221935SL

GP300SL HTS100T ASA250ML HTC700G ULL200D EADI200D AFAG35SL ECW025 EADPI200 HTSP100T CMO200D FSC05L

HTC100T OSL400 SYR02ML URC200D ER2223 RST250 SOB200D UR5118RP250G UR5528RP250G DDF400 ML NSCP400H

AFC400D/12 SYR10ML DCA01L