

TCA 136 Thermal Conductive Adhesives Product Datasheet

Enhance Reliability
High Thermal Conductivity
Low Cost Ownership

Description

TCA 136 thermal conductive adhesive has excellent thermal conductivity, a very thin BLT and can eliminate micro-bubble at the rough interface when applied. It provides excellent adhesion to copper, aluminum, steel, glass, ceramics and most plastics. After curing, TCA 136 has a hydrophobic layer formed on the air interface of fillet, which can provide excellent weatherability and water resistance. TCA 136 also has a very comparable coefficient of thermal expansion. Therefore, TCA 136 can provide higher reliability for electrical devices. It can be used as interface materials for LED, Laptop, Desktop and other high power devices.

Typical Physical Properties

Product Name	TCA 136 thermal conductive adhesives
PROPERTIES OF UNCURED MATERIAL	
Filler	Zinc Oxide
Resin Type	Mixed resins
Specific Gravity (ASTM D 1475-60)	2.0 – 2.5 g/cc
Viscosity (Brookfield, 0.5 rpm)	20 – 50 kcp
PROPERTIES OF CURED MATERIAL	
Tensile Strength (MPa)	16
C.T. E (ASTM E 831), PPM /°C	30

Young's modulus (GPa)	12
Thermal conductivity (W/mK)	7 – 10
Extractable ions (MIL-STD-883E)	
Na+	<5ppm
K+	<5ppm
F-	<5ppm
Cl-	<10ppm

Recommended Curing Conditions

60 – 90 min at 136 °C.

Note: curing time not including the time to allow the bond location to reach the desired cure temperature. Alternate cure profiles may be evaluated.

Storage & Shelf Life

6 months provided materials are kept in a sealed original container below – 20 °C. Storage beyond this period can produce higher viscosity. Protect from moisture, evaporation and foreign materials. Process ability of these products can be adversely affected by evaporation and contamination.

Safety

TCA 136 is a friendly, non-toxic material. However, general hygiene practice is recommended when handling this material. For detailed information please consult our SDS.

Package

TCA 136 solder adhesives are available in 10cc and 30cc. Other packages are available depending upon customer's request. Contact YINCAE for order information.