

Heat Sink Compound manufacturer and supplier

The objective of using heat sink compounds in electronic & electrical devices is the efficient removal of heat from the semiconductor junction to the ambient environment. Heat generated by a semiconductor must be removed to the ambient environment to maintain the junction temperature of the component within safe operating limits. This heat removal process involves conduction from a surface to a heat sink compound that can more efficiently transfer the heat to the ambient environment. The heat sink compound has to be carefully joined to the package to minimize the thermal resistance of this newly formed thermal joint. . When two such surfaces are joined, contact occurs only at the high points. The lower contact points form air-filled voids in the system. Typical contact area can consist of more than 95 % air voids, which creates a significant resistance to heat flow.

<u>Heat sink compound</u> are used to eliminate these interstitial air gaps from the interface by conforming to the rough and uneven mating surfaces. Because the heat sink compounds has a greater thermal conductivity than the air it replaces, the resistance across the joint decreases, and the component junction temperature will be reduced. A variety of heat sink compounds have been developed in response to the changing needs of the electronic market. Heat sink compounds are designed on basically 3 main categories electrical properties, thermal properties & chemicals properties. Heat sink compounds were designed on various parameters like requirement of thermal conductivity, heat capacity, temperature resistance, bleed, oxidation resistance, coefficient of thermal expansion, volume resistivity. Heat sink compounds conduct heat between a hot component and a heat sink or enclosure. Heat sink compounds fills interface variable tolerances in electronics assemblies and heat sink applications. Dispensable, highly conformable heat sink compounds require no cure cycle, mixing or refrigeration • Thermally stable heat sink compounds require virtually no compressive force to deform under typical assembly pressures Heat sink compounds supports high power applications requiring material with minimum bond line thickness and high conductivity. Nimble group India manufacturers various types of heat sink compounds for different applications . Part from standardized heat sink compounds Nimble also offers customized heat sink compounds. Nimble heat sink compounds are very reliable & very cost effective. Nimble have heat sink compounds in various ranges of TC, viscosity, heat capacity. We have specialized heat sink compounds for most critical applications. Nimble thermal compounds are non hazardous to the human as well as environment.

Thermal Paste manufacturer