Product HN100-31 :THERMAL COMPOUND

PRODUCT DESCRIPTION

1. This product is characterized by its white or grey paste with a moderate consistency and a thermal conductivity of 1.0W. It is designed for conventional low-temperature heat source scenarios and offers high cost-effectiveness.
2. High thermal conductivity, insulating silicone material; can be used within an ambient and operating temperature range of -40°C to +200°C.
3. Excellent electrical insulation and thermal conductivity, combined with low oil separation (approaching zero), and resistance to high and low temperatures, water, ozone, and weather aging. Good application stability, low consistency, and good application performance. Safe, non-toxic, odorless, non-corrosive, compliant with ROHS 2.0 standard.

APPLICATION

Can be widely applied on the contact surfaces between heat sources (power transistors, SCRs, thermopiles, etc.) and heat dissipation facilities (heat sinks, cooling bars, housings, etc.) in various electronic products and electrical equipment, acting as a heat transfer medium and providing moisture proofing, dust proofing, corrosion resistance, and shock absorption.

Suitable for surface coating or full potting of various microwave components such as microwave communication equipment, microwave transmission equipment, microwave dedicated power supplies, and regulated power supplies.

This type of silicone material provides excellent thermal conduction for heat-generating electronic components. Examples: transistors, CPU assemblies, thermistors, temperature sensors, automotive electronic components, car refrigerators, power modules, printer heads, etc.

PRODUCT PROPERTIES

Appearance	White, Grey Paste
Thermal Conductivity (W/m·K)	0.97± 0.1
Specific Gravity (g/cm³)	1.85± 0.08
Oil Separation (200°C, 24h)	≤0.3%
Volatiles (200°C, 24h)	≤0.6%
Penetration (1/10mm, 25°C)	370±20
Constant Temperature Oven (200°C)	Powdering after 8 days continuous baking
Heat Resistance (280°C Hot Plate)	Dries out after 3 hours continuous baking
Dielectric Strength (V/mm @ 0.20mm thickness)	2450

DIRECTIONS FOR USE

1. The product has good application properties and can be applied directly. Application methods include brushing, roller coating, automatic dispensing, or screen printing.
2. Thoroughly clean all contact surfaces with solvent before applying the grease. Ensure the gap is filled, but the layer should be as thin as possible. Applying too much is not beneficial and can affect heat transfer efficiency.
3. Use a clean tool (e.g., razor blade, credit card edge, clean knife) to pick up a small amount of thermal grease and transfer it to the application area. Spread it evenly with a scraper, then wipe off any excess grease around the edges with a lint-free cloth.

STORAGE

Store in a cool, dry place, protected from direct sunlight. Recommended storage temperature below 27°C.

Shelf life of 12 months in unopened, well-sealed original packaging.

During storage, a small amount of silicone oil may separate; this is normal and does not affect performance. Stir thoroughly before use if necessary.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm^2 x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

NOTE

The above information and data are obtained through extensive testing and are reliable. Due to the diversity of practical applications and conditions beyond our control, users should conduct tests to confirm the product's suitability before use. Our company does not guarantee against issues arising from the use of our products under specific conditions and shall not be liable for any direct, indirect, or incidental damages. Users experiencing any problems during application can contact our technical service department for assistance; we will endeavor to provide as much help as possible.