TECHNICAL DATA SHEET

SE2005
2 part encapsulation and potting silicone

Description

This is a 2-component, silicone elastomer system specially designed for electronic potting and encapsulation applications. It offers good protection against chemicals, environmental contamination, mechanical shock, vibration and impact damage. It can be employed in areas where low flammability is a prerequisite. The cured elastomer can be repaired. The component parts have relatively low viscosities and are readily mixed either by hand or machine

Key Features

- Low viscosity
- Deep section cure
- Excellent dielectric properties
- Protects against shock and vibration

Application

Protects against shock/vibration.

Use and Cure Information

The product is supplied as two components ‘A’ and ‘B’. These components should be mixed together in the ratio by weight shown opposite. Mixing can be done by hand or by automated dispensing machine using a static mixer nozzle. A nozzle of at least 9 GXF type elements is recommended for uniform mixing of both components.

The dispensing machine mix ratios should be adjusted if mixing by volume and not weight. IMPORTANT the mixed components will cure in the nozzle so to preserve nozzles a continuous process is required or a change of nozzle after the task is completed. Complete mixing of each component is achieved within the first 50-60% of the nozzle.

Mixing

Both the ‘A’ and ‘B’ parts should be well stirred to ensure the material is uniform and any settlement of the fillers have been remixed.

Place the required amount of ‘A’ and ‘B’ parts by weight at the mix ratio shown opposite, in a clean plastic or metal container of approximately 3 times their volume, and mix until the colour of the mixture is uniform. For best results, we recommend degassing. Degas by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this operation. In case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30-50 mbar intermittently over 5-10 minutes. Cast the mixture either by gravity or pressure injection.

It is important to check the compatibility in preliminary tests if unknown substrates are used.

Property	Test Method	Value
Uncured Product		
Cure Type		**Condensation**
De-mould Time / Full Cure at 23°C/73°F		**24 hrs**
Density A	BS ISO 2781	**1.21**
Density B	BS ISO 2781	**1.14**
Mix Ratio By Weight		**100:1**
Pot Life mins at 23°C/73°F		**1 hr mins**
Rheology		**Liquid**
Viscosity A	Brookfield	**9000 cP**
Viscosity B	Brookfield	**300 cP**
Viscosity Mixed	Brookfield	**9000 cP**
Cured Product		
7 days at 23+/-2°C and 50+/-5% humidity		
CTE Volumetric ppm/°C		**762 ppm/°C**
Color		**White**
Density	BS ISO 2781	**1.20 g/cm3**
Elongation at Break	ISO 37	**180 %**
Hardness Shore A	ASTM D 2240-95	**40**
Linear Shrinkage (%)		**0.5 %**
Max Working Temp		**220 °C / 428 °F**
Min Working Temp		**-50 °C / -58 °F**
Tear Resistance (N/mm)	BS ISO 34-1	**2 N/mm / 12 ppi**
Tensile Strength	ISO 40	**1.08 N/mm2 / 157 psi**
Thermal Conductivity		**0.24 W/mK**
Electrical Properties		
Dielectric Constant	ASTM D-150	**3.4**
Dielectric Strength kV/mm	ASTM D-149	**>18 kV/mm / 0 V/mil**
Volume Resistivity (Ohms cm)	ASTM D-257	**3E+14 ohms cm**
Storage		
Max Storage Temperature		**40 °C / 104 °F**
Shelf Life		**9 mths**

Health & Safety

Health and Safety

Safety Data Sheets available on request.

Packaging

CHT Encapsulants are available in a variety packaging including bulk containers. Please contact our sales department for more information.

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