TECHNICAL DATA SHEET

SilSo Cool 21005
2 part silicone gap filler

Description

This is a two part, thermally conductive, thixotropic material, which cures at room temperature or can be accelerated with heat. It is specifically formulated to give low hardness and resistance to slump and features low and high temperature mechanical and chemical stability. It remains flexible and has a natural low level tack, ideal for applications where a strong mechanical or chemical bond is not required. It has a controlled volatile content and an easy mix ratio by volume or weight.

Key Features

- Thermally conductive
- Soft material to compensate for CTE mismatch
- Flame resistant
- Electrically insulating

Application

TIM gap filler

Use and Cure Information

IMPORTANT:

The 'A' part of product
contains the platinum catalyst; great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.

Mixing

This gap filler can be supplied in bulk containers for use with automatic mixing equipment or in a twin cartridge system and static mixer to provide for easy application and mixing.

Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring that all the mixing tools (vessels and spatulas) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. moulding clays, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic.

Property	Test Method	Value
Uncured Product		
Appearance		**Thixotropic paste**
Color A		**Blue**
Color B		**White**
Density A	BS ISO 2781	**3.10**
Density B	BS ISO 2781	**3.06**
Extrusion Rate A Part		**360 g/min**
Extrusion Rate B Part		**333 g/min**
Max Cure Mins @ 100 °C		**30 mins**
Mix Ratio By Weight		**1:1**
Pot Life mins at 23°C/73°F		**31 mins**
Specific Gravity A		**3.10**
Specific Gravity B		**3.06**
Cured Product		
24 hours at 23+/-2°C		
CTE Volumetric ppm/°C		**53 ppm/°C**
Color		**Blue**
Elongation at Break	ISO 37	**50 %**
Hardness Shore 00	ASTM D 2240-95	**67**
Linear Coefficient of Thermal Expansion (ppm/°C)		**18 ppm/°C**
Max Working Temp		**200 °C / 392 °F**
Min Working Temp		**-50 °C / -58 °F**
Tensile Strength	ISO 37	**0.33 N/mm2 / 48 psi**
Thermal Conductivity		**3.68 W/mK**
Electrical Properties		
Dielectric Constant	ASTM D-150	**7.55**
Dielectric Strength kV/mm	ASTM D-149	**7.6 kV/mm / 193 V/mil**
Dissipation Factor	ASTM D-150	**0.0035**
Volume Resistivity (Ohms cm)	ASTM D-257	**1.4E+13 ohms cm**
Storage		
Max Storage Temperature		**30 °C / 86 °F**
Shelf Life		**12 mths**

Curing Conditions

The data offers a guide to the rate of cure at various temperatures, mixing of the components at temperatures between 15 and 25°C is recommended to ensure adequate pot life for degassing and handling. The pot life can be extended to several hours by chilling the components before mixing.

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

Health & Safety

Health and Safety

Safety Data Sheets available on request.

Packaging

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

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