Technical Data Sheet

Silcoset 151

1 Part RTV silicone adhesive sealant self levelling high temp food grade

Introduction

This is a 1-part, RTV (Room Temperature Vulcanising) silicone adhesive sealant. It is one in a range of Acetoxy cure products which are solvent free. During cure, it liberates a very small amount of acetic acid, giving rise to the familiar 'vinegar' odour, which quickly dissipates after cure. It exhibits good primerless adhesion to many substrates and cures rapidly at room temperature when in contact with atmospheric moisture. This product is not to be recommended for use with copper and its associated alloys or in electronic assemblies.

Key Features

- Flexible from - 60 to +300°C
- Aerospoace approved
- Resistant to solvents and chemicals
- Excellent adhesion to most substrates

Use and Cure Information

This product is a ready for use 1 Part system. If supplied in cartridges it can be applied using either manual or pneumatic dispensing guns. It can also be applied from bulk containers using conventional drum dispensing equipment.

All surfaces to which the sealant is to be applied should be clean, dry and free from grease, dirt, and loose material. Priming of surfaces is not normally required. If using as an adhesive, it should be applied to one clean surface and the other clean surface brought into contact with it within the tack free time stated opposite. For optimum bond strength, the thickness of the sealant joint should be a minimum of 1 mm.

The sealant will cure upon exposure to atmospheric moisture, ideally between 20 to 30 ºC and 40% to 70% Relative Humidity. Time taken for cure will depend on the thickness of the joint, humidity and temperature. Joints should be left undisturbed for at least 24 hours, but preferably longer to effect sufficient depth of cure. Full cure requires 7 days.

"For pneumatic dispensing of 310 ml cartridges, the recommended pressure is 2.25 to 3.45 bar (40 to 50 psi). Dispensing pressure above the recommended limits may lead to gas bypassing the piston, causing spluttering at the nozzle and poor bead quality"

Health and Safety

Safety Data Sheets available on request.

Packaging

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

Revision Date : 02/11/2017

Download Date : 29/07/2019

Property	Test Method	Value
Uncured product		
50g Spread Diameter mm		**85 mm**
Appearance		**White viscous liquid**
Cure Type		**Acetoxy**
Extrusion Rate g/min		**92 g/min**
FDA	CFR (21) 177.2600	**Yes**
Max Cure Hrs @ 25 °C		**12 hrs**
Rheology		**Self Level**
Self Bonding		**Yes**
Tack Free Time mins		**10 mins**
Viscosity A-Part mPas	Brookfield	**210000 mPas**
Cured product		
After 7 days cure at 23°+/-2°C and 60+/-5% humidity		
CTE Linear ppm/°C		**297 ppm/°C**
CTE Volumetric ppm/°C		**892 ppm/°C**
Colour		**White**
Compression Set %	BS ISO 815-1	**35 %**
Duro Shore A	ASTM D 2240-95	**43**
Elongation %	ISO 37	**180 %**
Hardness IRHD	BS ISO 48	**43**
Linear Shrinkage %		**0.5 %**
Max Working Temp +°C	AFS_1540B	**300 °C**
Min Working Temp - °C		**-60 °C**
Modulus @ 100% Strain MPa		**1.71 MPa**
Modulus Youngs MPa		**1.59 MPa**
SG	BS ISO 2781	**1.14**
Tear kN/m	BS ISO 34-1	**6.2 kN/m**
Tensile MPa	ISO 37	**2.93 MPa**
Thermal Conductivity W/mK		**0.2 W/mK**
UL 94V-0		**No**
Storage		
Max storage temperature °C		**40 °C**
Shelf life		**24 mths**
Electrical properties		
Dielectric Constant @ 1kHz	ASTM D-150	**3.5**
Dielectric Strength kV/mm	ASTM D-149	**20 kV/mm**
Dissipation Factor @ 1kHz	ASTM D-150	**0.0025**
Surface Resistivity ohms	ASTM D-257	**4.35E+15 ohms**
Volume Resistivity ohms cm	ASTM D-257	**3.49E+16 ohms cm**

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