

Silcoset 152

1 Part RTV silicone adhesive sealant paste high temperature

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
- Aerospace approved
- Good electrical insulation
- 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 °C 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.

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Property

Uncured product

Appearance
Cure Type
Extrusion Rate g/min
FDA
Max Cure Hrs @ 25 °C
Rheology
Self Bonding
Tack Free Time mins

Test Method

CFR (21) 177.2600

Value

White paste
Acetoxy
225 g/min
No
7 hrs
Paste
Yes
2 mins

Cured product

After 7 days cure at 23° +/-2 °C and 60+/-5% humidity

CTE Linear ppm/°C 292 ppm/°C
CTE Volumetric ppm/°C 876 ppm/°C
Colour White
Compression Set % BS ISO 815-1 40 %
Duro Shore A ASTM D 2240-95 40
Elongation % ISO 37 240 %
Hardness IRHD BS ISO 48 40
Linear Shrinkage % 1 %
Max Working Temp +°C AFS_1540B 300 °C
Min Working Temp - °C -60 °C
Modulus @ 100% Strain MPa 1 MPa
Modulus Youngs MPa 0.75 MPa
SG BS ISO 2781 1.08
Tear kN/m BS ISO 34-1 6.1 kN/m
Tensile MPa ISO 37 2.31 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 3.6
Dissipation Factor @ 1kHz ASTM D-150 0.008
Surface Resistivity ohms ASTM D-257 3.46E+14 ohms
Volume Resistivity ohms cm ASTM D-257 3.21E+15 ohms cm

Adhesion testing

Lap Shear Aluminium kg/cm² ASTM D1002 10.6 kg/cm²

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