

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
- Rolls Royce Aerospace 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 °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

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

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Download Date : 25/09/2018

Property

Uncured product

50g Spread Diameter mm

Appearance

Cure Type

Extrusion Rate g/min

FDA

Max Cure Hrs @ 25 °C

Rheology

Self Bonding

Tack Free Time mins

Viscosity A-Part mPas

Test Method

CFR (21]
177.2600

Brookfield

Value

85 mm

White viscous liquid

Acetoxy

92 g/min

Yes

12 hrs

Self Level

Yes

10 mins

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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