

## Silcoset 153

### 1 Part RTV silicone adhesive sealant paste

#### 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

- UL certified file number E334038
- 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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#### Property

##### Uncured product

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

##### Cured product

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

CTE Linear ppm/°C  
CTE Volumetric ppm/°C  
Colour  
Compression Set %  
Duro Shore A  
Elongation %  
Hardness IRHD  
Linear Shrinkage %  
Max Working Temp +°C  
Min Working Temp - °C  
Modulus Youngs MPa  
SG  
Tear kN/m  
Tensile MPa  
Thermal Conductivity W/mK

##### Storage

Max storage temperature °C  
Shelf life

##### Electrical properties

Dielectric Constant @ 1kHz  
Dissipation Factor @ 1kHz  
Surface Resistivity ohms  
Volume Resistivity ohms cm

##### Adhesion testing

Lap Shear Aluminium kg/cm<sup>2</sup> ASTM D1002

#### Test Method

CFR (21) 177.2600

BS ISO 815-1  
ASTM D 2240-95  
ISO 37  
BS ISO 48  
AFS\_1540B  
BS ISO 2781  
BS ISO 34-1  
ISO 37

#### Value

**Translucent paste**  
**Acetoxy**  
**304 g/min**  
**No**  
**7 hrs**  
**Paste**  
**Yes**  
**4 mins**

**292 ppm/°C**  
**876 ppm/°C**  
**Translucent**  
**45 %**  
**39**  
**280 %**  
**39**  
**0.9 %**  
**250 °C**  
**-60 °C**  
**0.65 MPa**  
**1.05**  
**5.5 kN/m**  
**2.32 MPa**  
**0.2 W/mK**

**40 °C**  
**24 mths**

**3.2**  
**0.0012**  
**7.77E+15 ohms**  
**4.7E+14 ohms cm**

**10.22 kg/cm<sup>2</sup>**

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