

Silcoset 151 (Silcoset 151)

1 Part self levelling high temperature FDA compliant adhesive sealant

Introduction

Silcoset 151 is a ready-to-use adhesive sealant, which reacts with atmospheric moisture to form a resilient rubber, which remains flexible over a very wide temperature range.

Silcoset 151 liberates a very small amount of acetic acid during cure which gives rise to the familiar "vinegar" odour, which quickly dissipates after cure.

These high specification sealants are ideal for a myriad of engineering applications from production work to fast, effective maintenance and on-the-spot repairs. They are applied directly from the cartridge and cure at room temperature. Under typical ambient conditions they develop a tack free surface in approximately 15 minutes and cure within 24 hours.

Key Features

- **Flexibility form - 60 to +300°C**
- **resistant to solvents and chemicals**
- **Good electrical insulation properties**
- **Excellent bonding to a wide range of substrates**

Use and Cure Information

How to Use

Silcoset 151 is ready for use. If supplied in cartridges it can be applied using either manual or pneumatic dispensers. It can also be applied from bulk containers using conventional drum dispensing equipment

Application and Cure

All surfaces to which the adhesive is to be applied should be clean, dry and free from grease, dirt, and loose material.

Priming of surfaces is not normally required.

If being employed as an adhesive, it should be applied to one clean surface and the other clean surface brought into contact with it within 5 minutes.

For optimum bond strength the thickness of the sealant joint is 1 to 2mm.

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"

Property	Test Method	Value
Uncured Product		
Colour:		White
Appearance:		White viscous liquid
Tack Free Time:		10 minutes *
3mm Cure Through:		<12 hours*
Extrusion Rate:		92g / minute
Viscosity		210000 mPas
* measured at 23+/-2°C and 65% relative humidity.		
Cured Elastomer		
(after 7 days cure at 23+/-2°C and 65% relative humidity)		
Tensile Strength:	BS903 Part A2	2.93 MPa
Elongation at Break:	BS903 Part A2	180 %
Youngs Modulus:		1.59 MPa
Modulus at 100% Strain:	BS903 Part A2	1.71 MPa
Tear Strength:	BS903 Part A3	6.20 kN/m
Hardness:	ASTM D 2240-95	43° Shore A
Specific Gravity:	BS 903 Part A1	1.14
Linear Shrinkage:		<0.5%
Thermal Conductivity:		0.20 W/mK
Coefficient of Thermal Expansion:		
Volumetric		892 ppm / °C
Linear		297 ppm / °C
Min. Service Temperature:		-60 °C
Max. Service Temperature:	AFS 1540B	300 °C

Electrical Properties

Volume Resistivity:	ASTM D-257	3.49E+16Ω.cm
Surface Resistivity:	ASTM D-257	4.35E+15Ω
Dielectric Strength:	ASTM D-149	20 kV/mm
Dielectric Constant at 1MHz:	ASTM D-150	3.5
Dissipation Factor at 1MHz:	ASTM D-150	2.5E-3

Adhesion Testing

Good unprimed adhesion to many substrates including glass stainless steel, aluminium and most plastics. Customers are advised to carry out their own tests on clean, degreased substrates to ensure satisfactory adhesion is achieved.

All values are typical and should not be accepted as a specification.

Health and Safety - Material Safety Data Sheets available on request.

Packages - 310 ml cartridges. Arrangements can be made to supply in bulk containers.

Storage and Shelf Life – Expected to be **24** months in original, unopened containers below 40°C.

Revision Date: 12/12/2005

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