

AS1740

1 Part RTV silicone adhesive sealant self levelling non corrosive Mil Spec

Introduction

This product is part of a range of high performance RTV's. It is a neutral cure silicone sealant specifically designed to meet the physical, chemical and temperature resistant requirements of MIL-A-46146B. It features exceptional physical properties and is compatible with many sensitive substrates including copper, brass, steel, aluminium and FR4, making this an ideal option for many electronic applications where high performance is paramount. The Alkoxy cure system produces a silicone sealant with excellent adhesion to most common substrates.

Key Features

- Meets the requirements of MIL A-46146B Group 1 Type 11
- UL certified under file No. E334038
- Excellent adhesion to most substrates
- Contains UV trace for easy detection

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		Viscous liquid
Cure Type		Alkoxy
FDA	CFR (21) 177.2600	No
Max Cure Hrs @ 25 °C		72 hrs
Rheology		Flowable
Self Bonding		Yes
Tack Free Time mins		18 mins
Viscosity A-Part mPas	Brookfield	40000 mPas

Cured product

After 7 days cure at 23° +/-2° C and 50+/-5% humidity

CTE Linear ppm/°C		294 ppm/°C
CTE Volumetric ppm/°C		883 ppm/°C
Colour		Translucent
Duro Shore A	ASTM D 2240-95	27
Elongation %	ISO 37	400 %
Max Working Temp +°C	AFS_1540B	200 °C
Min Working Temp - °C		-62 °C
SG	BS ISO 2781	1.03
Tensile MPa	ISO 37	2.5 MPa
Thermal Conductivity W/mK		0.18 W/mK
UL 94V-0		No
Storage		
Max storage temperature °C		40 °C
Shelf life		6 mths
Electrical properties		
Dielectric Constant @ 1kHz	ASTM D-150	2.6
Dielectric Strength kV/mm	ASTM D-149	18 kV/mm
Dissipation Factor @ 1kHz	ASTM D-150	0.0031
Volume Resistivity ohms cm	ASTM D-257	2.25 E+15 ohms cm

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