Technical Data Sheet

AS1745G

1 Part RTV silicone adhesive sealant paste non corrosive Mil spec high temp

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
- Meets the requirements of UL94HB
- High temperature resistance
- 90ml & 310ml

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 ºC 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	Test Method	Value
Uncured product		
Appearance		**Thixotropic paste**
Cure Type		**Alkoxy**
Extrusion Rate g/min		**94 g/min**
FDA	CFR (21] 177.2600	**No**
Max Cure Hrs @ 25 °C		**72 hrs**
Rheology		**Paste**
Self Bonding		**Yes**
Tack Free Time mins		**45 mins**
Cured product		
After 7 days cure at 23°+/-2°C and 50+/-5% humidity		
CTE Linear ppm/°C		**267 ppm/°C**
CTE Volumetric ppm/°C		**800 ppm/°C**
Colour		**Grey**
Duro Shore A	ASTM D 2240-95	**35**
Elongation %	ISO 37	**830 %**
Max Working Temp +°C	AFS_1540B	**316 °C**
Min Working Temp - °C		**-62 °C**
Modulus Youngs MPa		**0.63 MPa**
SG	BS ISO 2781	**1.16**
Tear kN/m	BS ISO 34-1	**42 kN/m**
Tensile MPa	ISO 37	**7.75 MPa**
Thermal Conductivity W/mK		**0.2 W/mK**
UL 94V-0		**No**
Storage		
Max storage temperature °C		**40 °C**
Shelf life		**12 mths**
Electrical properties		
Dielectric Constant @ 1kHz	ASTM D-150	**2.47**
Dielectric Strength kV/mm	ASTM D-149	**18 kV/mm**
Dissipation Factor @ 1kHz	ASTM D-150	**0.0035**
Volume Resistivity ohms cm	ASTM D-257	**8.8E+14 ohms cm**
Adhesion testing		
Lap Shear Aluminium kg/cm²	ASTM D1002	**7.83 kg/cm²**

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