

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 Group 111 Type 1
- 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 °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.

Revision Date : 02/11/2017

Download Date : 15/08/2019

Property

Uncured product

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

Test Method

Value

Thixotropic paste
Alkoxy
94 g/min
CFR (21] 177.2600
No
72 hrs
Paste
Yes
45 mins

Cured product

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

CTE Linear ppm/° C
CTE Volumetric ppm/° C
Colour
Duro Shore A
Elongation %
Max Working Temp +° C
Min Working Temp - ° C
Modulus Youngs MPa
SG
Tear kN/m
Tensile MPa
Thermal Conductivity W/mK
UL 94V-0

267 ppm/° C
800 ppm/° C
Grey
35
830 %
316 ° C
-62 ° C
0.63 MPa
1.16
42 kN/m
7.75 MPa
0.2 W/mK
No

Storage

Max storage temperature
°C
Shelf life

40 ° C
12 mths

Electrical properties

Dielectric Constant @ 1kHz
Dielectric Strength kV/mm
Dissipation Factor @ 1kHz
Volume Resistivity ohms cm

ASTM D-150
ASTM D-149
ASTM D-150
ASTM D-257
2.47
18 kV/mm
0.0035
8.8E+14 ohms cm

Adhesion testing

Lap Shear Aluminium kg/cm² ASTM D1002

7.83 kg/cm²

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