

AS1745T

1 Part Non-Corrosive Neutral Cure Adhesive Sealant (Electronic Grade)

Description

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

- MIL 46146B physical / chemical requirements
- High mechanical strength
- Contains UV tracer for visual inspection
- Non slumping adhesive paste

Application

Aerospace and engineering

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 & Safety

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 29 Apr 2021
Revision No 1
Download Date 16 Oct 2021

Property

Uncured Product

Appearance
Cure Profile
Cure Through to 3 mm Depth
Cure Type
Extrusion Rate g/min
Rheology
Self Bonding
Slump
Tack Free Time / Skin Formation at 23°C/73°F
UV Trace

Test Method

Value

Thixotropic paste
23+/-2°C and 50+/-5% humidity

72 hr

Alkoxy

116 g/min

Paste

Yes

1 mm/5mins

45 min

Yes

Cured Product

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

Color
Density
Elongation at Break
Hardness Shore A
Linear Coefficient of Thermal Expansion (ppm/°C)
Max Working Temp
Min Working Temp
Tear Resistance (N/mm)
Tensile Strength
Thermal Conductivity
Volume Coefficient of Thermal Expansion (ppm/°C)

BS ISO 2781

Translucent

1.16 g/cm3

ISO 37

775 %

ASTM D 2240-95

35

267 ppm/°C

200 °C / 392 °F

-62 °C / -80 °F

BS ISO 34-1

29.8 N/mm / 172 ppi

ISO 40

6.9 N/mm2 / 1001 psi

0.2 W/mK

800 ppm/°C

Electrical Properties

Dielectric Constant
Dielectric Strength (V/mil)
Dielectric Strength kV/mm
Dissipation Factor
Volume Resistivity (Ohms cm)

ASTM D-150

2.49

457 V/mil

ASTM D-149

18 kV/mm / 457 V/mil

ASTM D-150

0.0007

ASTM D-257

4.71E+15 ohms cm

Adhesion Testing

Lap Shear Aluminium kg/cm²

ASTM D1002

7.83 kg/cm²

Storage

Max Storage Temperature
Shelf Life

40 °C / 104 °F

12 mths

The content set out in the technical data sheet does not contain information upon which you should rely. It is provided for general information purposes only and does not constitute a product specification. You must obtain professional or specialist advice before taking any action based on the information provided in the technical data sheet.

CHT make reasonable efforts to ensure that information set out in the technical data sheet is complete, accurate, and up-to-date. CHT do not, however, make any representations, warranties or guarantees (whether express or implied) that information set out in the technical data sheet is complete, accurate, or up-to-date or that the product will be suitable for your requirements. You should carry out your own testing to determine the applicability of such information and whether the product will be suitable. CHT reserve the right to modify the technical data sheet at any time.

The CHT technical service department is available to offer further information and advice and should it be needed to look at modifying current products or custom formulate a new one to meet your specific requirements. Please contact the technical service department.

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