

AS1706 1 Part Non-Corrosive Neutral Cure Adhesive Sealant (Electronic Grade)

Description

This is a non-corrosive, neutral cure, 1-part, RTV (Room Temperature Vulcanising) silicone adhesive sealant. It is one in a range of Alkoxy cure products which are solvent free. It exhibits excellent primerless adhesion to many substrates and cures at room temperature when in contact with atmospheric moisture to form a tough rubber. This product will not corrode copper or its alloys and is suitable for use with electronic components.

Key Features

- UL94 V0 recognised in file No. E334038
- Good thermal conductivity
- Non corrosive for sensitive substrates
- Free of environmentally hazardous materials

Application

Electronic assemblies, aerospace and automotive

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"

It is important to check the compatibility in preliminary tests if unknown substrates are used.

Health & Safety

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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 20 May 2021
Revision No 2
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Property

Uncured Product

Property	Test Method	Value
Cure Profile		23+/-2°C and 50+/-5% humidity
Cure Through to 3 mm Depth		48 hr
Cure Type		Alkoxy
Extrusion Rate g/min		400 g/min
Rheology		Paste
Self Bonding		Yes
Tack Free Time / Skin Formation at 23°C/73°F		8 min

Cured Product

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

Property	Test Method	Value
Color		White
Density	BS ISO 2781	2.75 g/cm ³
Elongation at Break	ISO 37	25 %
Hardness Shore A	ASTM D 2240-95	78
Linear Coefficient of Thermal Expansion (ppm/°C)		84 ppm/°C
Max Working Temp		200 °C / 392 °F
Min Working Temp		-50 °C / -58 °F
Tensile Strength	ISO 37	2.50 N/mm ² / 363 psi
Thermal Conductivity		1.6 W/mK
UL 94V-0		Yes
UL File No.		E334038
UL Listed		Yes
Volume Coefficient of Thermal Expansion (ppm/°C)		252 ppm/°C
Youngs Modulus (N/mm ²)		16.9 N/mm ² / 2451 psi

Electrical Properties

Property	Test Method	Value
Volume Resistivity (Ohms cm)	ASTM D-257	6.74E+14 ohms cm

Adhesion Testing

Property	Test Method	Value
Lap Shear Aluminium kg/cm ²	ASTM D1002	3.0 kg/cm ²

Storage

Property	Value
Max Storage Temperature	40 °C / 104 °F
Shelf Life	12 mths

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