

AS1421

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

Description

This is a heat cured, non-corrosive, neutral cure, 1-part, silicone adhesive sealant. It is one in a range of Addition cure products which are solvent free. It exhibits primerless adhesion to many substrates when cured at temperatures above 100°C. It cures to form a very tough resilient silicone elastomer. 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
- Excellent thermal conductivity
- Fast heat cure
- Adhesion to most substrates

Application

Electronics

Use and Cure Information

This product is a ready to use 1-Part system. It is recommended that liquid versions be thoroughly mixed prior to use, particularly thermally conductive products which are supplied in tubs or pails. Ensure that all surfaces of the substrate are clean and degreased. The work area should be free of contaminants such as organic compounds of sulphur, phosphorus, nitrogen and tin, which act as catalyst poisons.

The rate of cure will depend on how long it takes for the sealant to reach the required curing temperature. Small beads of 1 to 2mm diameter, used as formed-in-place gaskets, can be cured quickly with hot air guns e.g. paint stripper types. With larger sections of sealant or when using as an encapsulant, cure times will increase and the use of an oven will be needed. Increasing the temperature will reduce cure times and maximum cure temperature should not exceed 200°C. All times are based on the actual time in an air-circulating oven at the stated temperature. Note: Improved adhesion is achieved by post cure at 120 to 150°C for 1 to 2 hours.

“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 04 Dec 2021

Property

Uncured Product

Appearance

Cure Profile

Cure Type

Rheology

Self Bonding

Viscosity Mixed

Cured Product

After 1 hour at 125°C

Color

Density

Elongation at Break

Hardness Shore A

Linear Coefficient of Thermal Expansion (ppm/°C)

Max Working Temp

Min Working Temp

Tensile Strength

Thermal Conductivity

UL 94V-0

UL File No.

Volume Coefficient of Thermal Expansion (ppm/°C)

Youngs Modulus (N/mm²)

Electrical Properties

Dielectric Strength (V/mil)

Dielectric Strength kV/mm

Volume Resistivity (Ohms cm)

Adhesion Testing

Lap Shear Aluminium kg/cm²

Storage

Max Storage Temperature

Min Storage Temperature

Shelf Life

Test Method Value

Grey paste

16 minutes at 100°C

Addition Heat Cure Paste

Yes

140000 - 240000 cP

Brookfield

Grey

2.18 g/cm³

105 %

BS ISO 2781

ISO 37

ASTM D 2240-95

56

195 ppm/°C

210 °C / 410 °F

-50 °C / -58 °F

2.2 N/mm² / 319 psi

ISO 40

2.1 W/mK

Yes

E334038

586 ppm/°C

0.75 N/mm² / 109 psi

ISO 40

ASTM D-149

ASTM D-257

ASTM D1002

>457 V/mil

>18 kV/mm / 0 V/mil

3.5E+13 ohms cm

7.68 kg/cm²

10 °C / 50 °F

-5 °C / 23 °F

12 mths

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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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