

AS1402

1 Part Non-Corrosive Neutral Cure Adhesive Sealant (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

- Fast heat cure
- Good adhesion to most substrates
- Non slumping paste
- Translucent

Application

large metal surface areas

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

Extrusion Rate g/min

Rheology

Self Bonding

Cured Product

After 1 hour at 150°C

100% Modulus (N/mm²)

Color

Density

Elongation at Break

Hardness Shore A

Linear Coefficient of Thermal Expansion (ppm/°C)

Linear Shrinkage (%)

Max Working Temp

Min Working Temp

Tear Resistance (N/mm)

Tensile Strength

Thermal Conductivity

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

Thixotropic paste
1 hour at 150°C, 2 hours at 100°C

Addition Heat Cure
440 g/min
Paste
Yes

0.54 MPa / 78 psi
Translucent

1.03 g/cm³

295 %

30

291 ppm/°C

2 %

200 °C / 392 °F

-50 °C / -58 °F

BS ISO 34-1

3.1 N/mm / 18 ppi

ISO 40

1.5 N/mm² / 218 psi

0.2 W/mK

874 ppm/°C

0.38 N/mm² / 55 psi

ASTM D-149

457 V/mil

18 kV/mm / 457 V/mil

ASTM D-257

>1E+15 ohms cm

ASTM D1002

8.25 kg/cm²

15 °C / 59 °F

-5 °C / 23 °F

6 mths

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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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