TECHNICAL DATA SHEET

AS1701
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

- Non corrosive
- Excellent adhesion to most substrates
- Fast skinning
- Non slumping paste

Application

Vibration damping and board coating e.g. voltage regulators

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 ºC 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 preminary tests if unknown substrates are used.

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	07 Sep 2026

Property	Test Method	Value
Uncured Product		
Cure Profile		**23+/-2°C and 50+/-5% humidity**
Cure Through to 3 mm Depth		**24 hr**
Cure Type		**Alkoxy**
Rheology		**Paste**
Self Bonding		**Yes**
Tack Free Time / Skin Formation at 23°C/73°F		**3 min**
Cured Product		
7 days at 23+/-2°C and 50+/-5% humidity		
100% Modulus (N/mm2)		**2.1 MPa / 305 psi**
Color		**Black**
Density	BS ISO 2781	**1.28 g/cm3**
Elongation at Break	ISO 37	**200 %**
Hardness Shore A	ASTM D 2240-95	**52**
Linear Coefficient of Thermal Expansion (ppm/°C)		**230 ppm/°C**
Linear Shrinkage (%)		**1 %**
Max Working Temp		**220 °C / 428 °F**
Min Working Temp		**-50 °C / -58 °F**
Tear Resistance (N/mm)	BS ISO 34-1	**19.1 N/mm / 109 ppi**
Tensile Strength	ISO 37	**2.35 N/mm2 / 341 psi**
Thermal Conductivity		**0.6 W/mK**
Volume Coefficient of Thermal Expansion (ppm/°C)		**690 ppm/°C**
Youngs Modulus (N/mm2)		**1.8 N/mm2 / 261 psi**
Electrical Properties		
Dielectric Breakdown (kV/mm)		**33.33 kV**
Dielectric Constant	ASTM D-150	**2.92**
Dielectric Strength (V/mil)		**>457 V/mil**
Dielectric Strength kV/mm	ASTM D-149	**>18 kV/mm / 0 V/mil**
Dissipation Factor	ASTM D-150	**0.0012**
Volume Resistivity (Ohms cm)	ASTM D-257	**7.85E+15 ohms cm**
Adhesion Testing		
Lap Shear Aluminium kg/cm²	ASTM D1002	**10.78 kg/cm²**
Lap Shear Copper kg/cm²	ASTM D1002	**10.06 kg/cm²**
Lap Shear Polycarbonate kg/cm²	ASTM D1002	**5.93 kg/cm²**
Lap Shear Stainless Steel 304 kg/cm²	ASTM D1002	**2.98 kg/cm²**
Storage		
Max Storage Temperature		**40 °C / 104 °F**
Shelf Life		**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.
CHT Germany GmbH: Postfach 12 80, 72002 Tübingen, Bismarckstraße 102, 72072 Tübingen, Germany
Telephone: 07071/154-0, Fax: 07071/154-290, Email: info@cht.com, Homepage: www.cht.com / www.cht-silicones.com