

CALSIL Machinery & Equipment



ADH 1 TAT 1 Part neutral thixotropic adhesive sealant

1. Product Description:

CALSIL ADH 1 TAT is a specially formulated neutral cure silicone sealant designed for use with sensitive electronic assemblies.

It is described as an alkoxy 1-part room temperature vulcanizing (RTV) silicone sealant. The Alkoxy cure system produces a silicone sealant with excellent adhesion to most common substrates;

2. Key Properties

- Non corrosive
- Excellent primerless adhesion to many substrates
- Excellent dielectric properties
- Low odour

3. Applications

- Assembly of electrical and electronic equipment
- Sealing of corrosion sensitive devices
- Shallow encapsulation of small circuits and connectors

4. Typical Properties (not for sales specifications, please contact us prior to writing sales specs)

| Properties | Units | Values |
|--|------------|-------------------|
| Uncured Product | | |
| Chemical characterization | | 1 Part Alkoxy RTV |
| Colour | | Translucent |
| Appearance | | Paste |
| Specific Gravity | | 1.10 |
| Extrusion Rate | Gr./minute | 290 |
| Tack Free Time | minutes | 10 * |
| 3mm Cure Through | hours | 36 * |
| <i>*measured at 23+/-2°C and 65% relative humidity.</i> | | |
| Cured Elastomer (after 7 days cure at 23+/-2°C and 65% relative humidity) | | |
| Tensile Strength | MPa | 2.43 |
| Elongation at Break | % | 545 |
| Young Modulus | MPa | 0.54 |
| Tear Strength | KN/m | 12.3 |
| Hardness | Shore A | 30 |
| Thermal Conductivity | W/mK | 0.20 |
| Min Service Temperature | °C | - 50 |
| Max Service Temperature | °C | 200 |
| Electrical Properties | | |
| Volume Resistivity | .cm | 3.95 E+16 |
| Surface Resistivity | .cm | 2.10 E+15 |
| Dielectric Constant at 1 MHz | | 3.00 |
| Dissipation Factor at 1 MHz | | 2.5E-3 |

5. How to use

After removal of the package seal the product is ready for use. It can be applied manually or using a pneumatic caulking gun.

Following exposure to atmospheric moisture the product begins to cure to a resilient, durable silicone elastomer. Full cure will depend on the relative humidity and ambient temperature. At 20 to 30°C and 40 to 70% Relative Humidity a 3mm section will normally cure in less than 24 hours.

The volatile by-products of the curing mechanism are relatively inoffensive alcohols.

Full bond strength and physical properties will be achieved in 7 days. Cure time depends on the thickness of sealant applied and the area exposed to the atmosphere. It is recommended that a minimum thickness of 1 mm is achieved between parts to obtain best adhesion to substrates.

6. Safety Handling Information

Product Information relative to security, physical and health hazards are in the Material Safety Data Sheet (MSDS) supplied with the product or upon request.

7. Storage and Shelf Life

Expected to be 12 months in original, unopened containers below 40 °C.

8. Packaging

310 ml cartridges , 20 Kg pails and 200 Kg drums

9. Restrictions

This ingredient is solely proposed in industrial applications. It is not suitable to be used in cosmetic, medical, human injection, pharmaceutical or food applications.

10. Limited Warranty PLEASE READ CAREFULLY

The information herein is offered in good faith. It is believed to be accurate at the time of shipment.

It should not be used as a substitute for the customer's test, the customer bears the responsibility to ensure that the product matches the intended application is safe and achieves the desired benefits.

The product warranty is limited to the refund value of the purchase or the replacement only when it demonstrated that the product is out of the agreed sales specifications.

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For more information, please contact our nearest office

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