

CALSIL Machinery & Equipment

ADH 31 AR2 2 Part RTV silicone adhesive sealant paste fast cure



1. Product Description:

CALSIL ADH 31 AR2 is accelerated condensation curing package, which consists of an acetoxo (A part) sealant and an accelerator (B part) in a 10 : 1 volumetric ratio. By extruding the system through a static mixer nozzle, the intimately mixed system behaves like a conventional silicone sealant, but has the advantage of very rapid cure - less than 1 hour to almost full cure and sufficient cure to enable handling after 25 minutes.

2. Key Properties

- Good adhesion and fast assembly
- Heat accelerated cure at 120°C
- sufficient anaerobic cure for handling in 25 minutes (not possible with conventional 1-Part RTV sealants)
- similar physical properties to the conventional sealant
- can be heat accelerated

3. Applications

- Bonding and sealing in domestic appliances
- Encapsulation of electric parts

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

| Properties | Units | Values |
|--|---------|--------------------|
| Uncured Product | | |
| Chemical characterization | | 2 Part Acetoxo RTV |
| Colour Part A | | Red |
| Colour Part B | | Black |
| Appearance | | Paste |
| Specific Gravity Part A | | 1.03 |
| Specific Gravity Part B | | 1.20 |
| Viscosity Part A | mPa.s | 72000 |
| Viscosity Part B | mPa.s | 300000 |
| Tack Free Time | minutes | 4 * |
| 3mm Cure Through | hours | < 1 * |
| <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 | 1.50 |
| Elongation at Break | % | 260 |
| Young Modulus | MPa | 0.38 |
| Modulus at 100 % Strain | MPa | 0.50 |
| Tear Strength | KN/m | 4.00 |
| Hardness | Shore A | 30 |
| Specific Gravity | | 1.06 |
| Thermal Conductivity | W/mK | 0.2 |
| Min Service Temperature | °C | - 65 |
| Max Service Temperature | °C | 250 |

| Electrical Properties | | |
|-----------------------------|-------|----------|
| Volume Resistivity | .cm | 2.10E+14 |
| Surface Resistivity | .cm | 1.24E+16 |
| Dielectric Strength | kV/mm | > 18 |
| Dielectric Constant at 60Hz | | 3.00 |
| Dissipation Factor at 60Hz | | 2.6E-3 |

5. How to use

CALSIL ADH 31 AR2 is supplied as two components, Part A sealant and Part B accelerator packaged in a 10 to 1 ratio twin cartridge.

CALSIL ADH 31 AR2 is also suitable for machine dispensing. The dispensing machine must be set to deliver 10 parts of A and 1 part of B by VOLUME, through a static mixing nozzle and then applied to the application. **IMPORTANT:** the mixed components will cure in the nozzle so to preserve nozzles a continuous process is required or a change of nozzle after the task is completed. A nozzle of at least 20 folds is recommended for uniform mixing of both components. Dispensing by weight requires 10 parts of A and 1.17 parts of B.

Ensure the surface is clean and dry before applying the CALSIL ADH 21 AR2 package. Complete mixing of each component is achieved within the first 50-60% of the nozzle. The extruded sealant should be applied to the substrate immediately and tooled within 1 minute of application. Heat acceleration at 120°C will give a full cure within 1 hour.

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

264 ml 10 to 1 twin cartridges,

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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