

AS2500 2 Part RTV silicone adhesive sealant paste fast cure

Introduction

This is a novel twin pack system, which consists of a 1-Part RTV Silicone Sealant and an accelerator in a 10:1 mix ratio. By extruding the system through a static mixer nozzle, the intimately mixed material behaves like a conventional silicone sealant, but has the advantage of very rapid cure - less than 3 hours to almost full cure, allowing for very fast assembly. The sealant will cure anaerobically (without atmospheric moisture) in approximately 2 hours which is not possible with a conventional 1-Part RTV sealant.

Key Features

- Very fast room temperature Cure
- Good adhesion to most substrates
- Anaerobic cure
- Low odour

Use and Cure Information

This product is supplied as a twin pack 10:1 system.

When supplied in bulk containers A & B parts should be mixed at a ratio of 10:1 by volume using an automated machine with a static mixer nozzle. **IMPORTANT:** Mixed material in the mixer nozzle will cure quickly, therefore a continuous application process will avoid wasted material. A mixer nozzle of at least 9 GXF type elements is recommended for uniform mixing of both components.

The product can also be supplied in a high-quality twin cartridge system, the A part in a 240ml cartridge and the B part in a 24ml integral cartridge. To facilitate removal of the protective, plug a metal removable disc is located above the locking nut. The action of unscrewing the locking nut removes the plug. The static mixer nozzle is placed on the outlet and locked into place using the locking nut. (13mm). The stepped outlet of the static mixer nozzle is normally cut back 2 or 3 steps before fitting the cartridge into the dispensing gun*. The cartridge is then located in the gun and pressed to click into place.

The sealant is extruded by applying a steady pressure to the trigger. In the case of the manually operated dispenser, full depression of the trigger should be maintained for as long as possible before releasing and reapplying trigger pressure. Complete mixing of each component is achieved within the first 50-60% of the nozzle.

All substrate surfaces should be clean and free of grease, the mixed sealant should be applied to one surface and contact made immediately, any additional tooling should be carried out within the tack free time shown opposite. Full cure times will vary slightly depending on the joint dimensions.

* Excellent dual cartridge dispensers both manual and pneumatic are available from Sulzer Mixpac (UK) Limited – Ref DSM200.

Health and Safety

Safety Data Sheets available on request.

Packaging

ACC Adhesives are available in a variety packaging including cartridges and bulk containers. Please contact our sales department for more information.

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Property

Uncured product

| Property | Test Method | Value |
|----------------------|-------------------|-------------------|
| Appearance | | Thixotropic paste |
| Cure Type | | Acetoxo |
| Extrusion Rate g/min | | 304 g/min |
| FDA | CFR (21) 177.2600 | No |
| Max Cure Hrs @ 25 °C | | 1.5 hrs |
| Mix Ratio | | 10:1 |
| Rheology | | Paste |
| Self Bonding | | Yes |
| Tack Free Time mins | | 4 mins |

Cured product

After 7 days cure at 23° +/-2° C and 50+/-5% humidity

| | | |
|---------------------------|----------------|------------|
| CTE Linear ppm/°C | | 292 ppm/°C |
| CTE Volumetric ppm/°C | | 876 ppm/°C |
| Colour | | Black |
| Duro Shore A | ASTM D 2240-95 | 39 |
| Elongation % | ISO 37 | 280 % |
| Linear Shrinkage % | | 1 % |
| Max Working Temp +°C | AFS_1540B | 250 °C |
| Min Working Temp - °C | | -50 °C |
| Modulus @ 100% Strain MPa | | 0.91 MPa |
| Modulus Youngs MPa | | 0.65 MPa |
| SG | BS ISO 2781 | 1.05 |
| Tear kN/m | BS ISO 34-1 | 5.5 kN/m |
| Tensile MPa | ISO 37 | 2.32 MPa |
| Thermal Conductivity W/mK | | 0.2 W/mK |
| UL 94V-0 | | No |

Storage

| | |
|----------------------------|---------|
| Max storage temperature °C | 40 °C |
| Shelf life | 12 mths |

Electrical properties

| | | |
|----------------------------|------------|------------------|
| Dielectric Constant @ 1kHz | ASTM D-150 | 3 |
| Dielectric Strength kV/mm | ASTM D-149 | 18 kV/mm |
| Dissipation Factor @ 1kHz | ASTM D-150 | 0.0025 |
| Surface Resistivity ohms | ASTM D-257 | 4.70E+14 ohms |
| Volume Resistivity ohms cm | ASTM D-257 | 7.77E+15 ohms cm |

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