

RCS Rapid Cure Sealant

Electrolube RCS is a single component, solvent-free, low odour RTV which cures upon exposure to atmospheric moisture. The product offers high bond strength when applied to a variety of surfaces and exhibits rapid tack-free times. It is suitable for applications where there is the need to mechanically support components in order to overcome vibration failures commonly experienced in the automotive industry.

- High viscosity, non-slump paste with good electrical insulation characteristics
- High bond strength and excellent adhesion to a wide variety of substrates
- Modified polymer with silyl functional group; no low molecular weight cyclosiloxanes during cure
- Remains flexible and elastic over a wide temperature range

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|---------------------|--|--|
| Approvals | RoHS Compliant (2015/863/EU): | Yes |
| Typical Properties: | Colour Main Component | White Modified Polymer with Silyl Functional Group |
| | Viscosity (Pa s) | 100 |
| | Consistency | Non-Slump Paste |
| | Density (g/ml) | 1.6 |
| | Skin forming rate* | 6-10 minutes |
| | Cure time (Hours @ 20°C) * | 24 |
| | Shelf Life | 12 Months |
| | *Curing rate and skin forming is dependent upon ambient conditions of temperature and humidity | |
| Cured Properties: | Thermal Conductivity (W/m.K) | 0.55 |
| | Temperature Range (°C) | -40 to +130 |
| | Glass Transition Temperature (°C) | -45 |
| | Shore Hardness | A40-45 |
| | Shore Hardness after 7 days | A80 |
| | Tensile Strength (MPa) | 5 |
| | Elongation at Break (%) | 250 |
| | Surface Resistivity (Ω) | 1 x 10 ¹² |
| | Volume Resistivity (Ω.cm) | 10 x 10 ¹² |
| | Dielectric Constant (@ 50Hz) | 4.3 |
| | Heat Aging – Weight Loss (7 days at 130°C / %) | <3 |
| | Moisture Resistance (96 hours at 95% RH, 40°C / Ω) | 5 x 10 ⁹ |

Adhesive Properties

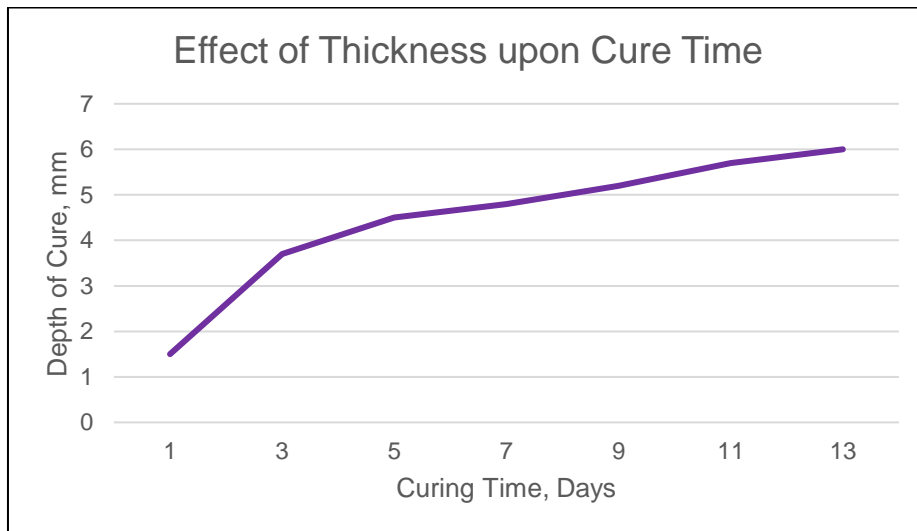
Adhesion to different substrates:

Cured for 7 days at 23°C, 50%RH and an open time of 5 minutes

| Substrate | Shear Strength (MPa) | Comments |
|-----------------|----------------------|------------------|
| Aluminium | 6.8 | Cohesion Failure |
| Stainless Steel | 5.1 | Cohesion Failure |
| Polycarbonate | 5.4 | Cohesion Failure |
| Nylon | 5.1 | Cohesion Failure |
| Glass | 6.3 | Cohesion Failure |

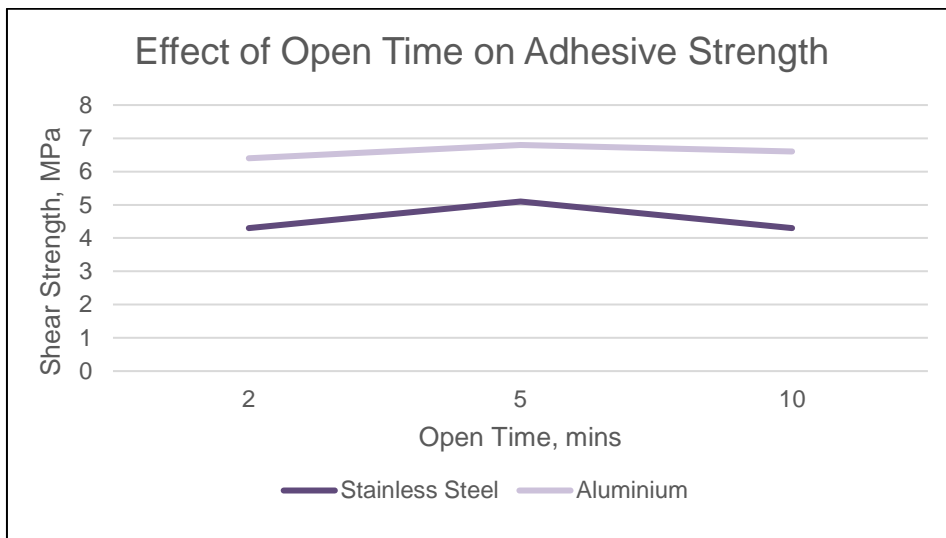
Cure thicknesses:

Cured at 23°C, 50%RH and an open time of 5 minutes



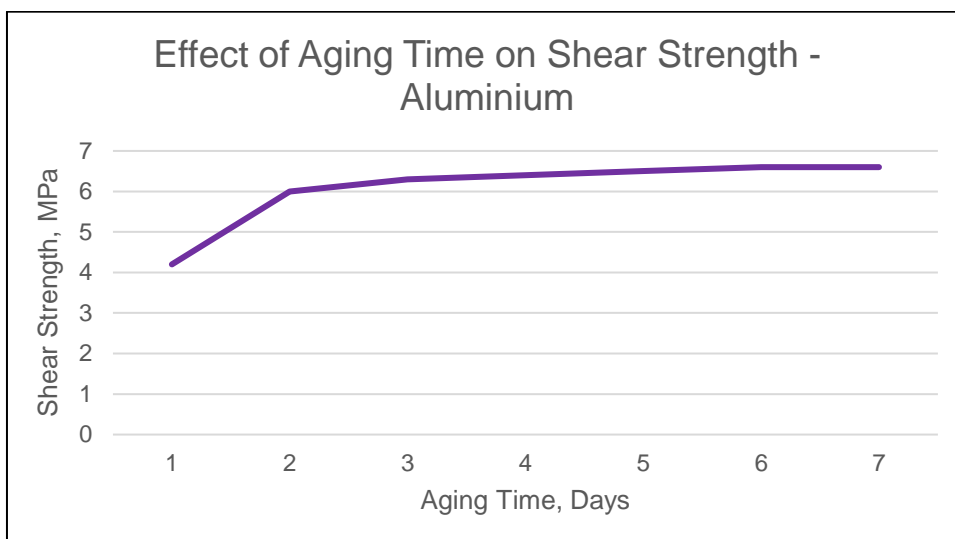
Open time:

Cured at 23°C, 50%RH for 7 days



Full cure properties:

Cured at 23°C, 50%RH and an open time of 5 minutes



Directions for Use

Surfaces must be clean, dry and free from grease, dust and contaminants; Electrolube offer a range of cleaning products, including Ultrasolve (ULS), for such applications. Ensure that all solvents have completely evaporated prior to application.

RCS is a moisture curing system. Relative humidity of 50% or above is preferred for curing. Apply a thin layer of product onto each bonding surface; the thickness of the layer will affect the rate of initial cure – the higher the thickness applied, the longer it will take to reach the required strength. Final strength is obtained after ~24hours.

Bulk Packaging Specifications

| Package Size | Diameter (mm) | Height (mm) |
|---------------------|----------------------|---------------------------------|
| 310 ml cartridge | 45.9 (inside) | 215.5 (without threaded nipple) |
| 17 kg tin | 285 (internal) | 280 (internal) |

Revision 8: Nov 2019