



# Selection Guide

## RTV1 Silicone Adhesive Sealants

**Brand** CALSIL  
**Market** Machinery & Equipment  
 RTV1 Silicone Adhesive Sealants - CALSIL ADH

### Main Properties of CALSIL ADH Silicones Adhesives Sealants

- Wide operating temperature range -65 to +300°C
- Excellent electrical properties
- Flexibility
- UV resistance
- Good chemical resistance
- Resistant to humidity and water
- No toxicity

CALSIL ADH Silicone adhesive sealants use chemistries of condensation cure, which uses moisture in the atmosphere to trigger the curing process this will take place at room temperature. These are commonly referred to as RTV's, meaning Room Temperature Vulcanising. These are normally supplied as 1-part systems although they can be formulated as 2-parts for fast curing systems. They are normally described in terms of the small amount of the chemical by-product produced during the reaction. CALSIL ADH Silicone adhesive sealants cure mechanisms are Aetoxo, Alcoxy and Acetone.

Cure Mechanism	By-Product	Advantages	Disadvantages
Acetoxo	Acetic Acid	Good Adhesion High Temperature Fast Cure (4-12 hrs)	Corrosive Odour
Alcoxy	Methanol	Good Adhesion Non-Corrosive High Temperature	Slow Cure
Acetone	Acetone	Non-Corrosive Good Adhesion High Temperature Fast Cure (8-24 hrs)	Not suitable for Acrylics and Polycarbonate

All these alternative cure mechanisms will lead to the formation of an elastic and relatively tough silicone rubber however, some of the final physical properties of these rubbers will be substantially different. The chemical by-products have an impact on the products suitability for certain applications. It is therefore, important to consider the materials being used, the operating environment and the production methods employed before you select your RTV. Acetone cure silicones adhesives have many technical advantages they are now being specified for a wide variety of applications especially within electronics.

### Typical Applications

- Electronics – sealing cables, electrical boxes, fixing components, sealing sensors, conductive gaskets
- Automotive – under bonnet electronics, vibration protection, making gaskets & seals, sealing sensors
- Aerospace – high temperature bonding, sealing electronics, conductive gaskets, vibration protection
- Photovoltaic – bonding PV modules into frame, attaching control boxes, sealing electrical boxes
- LED's – attaching heat sinks, attaching components, sealing enclosures
- Domestic Appliances – attaching door hinges to oven doors, sealing hobs
- Food Industry – sealing kitchens, sealing ducting
- Lighting – sealing lenses, bonding covers, sealing cables, fire proofing
- Solar Energy – sealing solar collectors
- Construction – glazing, bathroom sealants, sealing joints
- Engineering – making gaskets, general adhesive & sealing
- Marine – sealing window hatches, safety lighting
- Rubber Industry – bonding silicone rubber

*See main Physical and Electricals properties on verso*

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Properties *	Cure Type	Rheology	Viscosity mPa.s	Extrusion Rate	Colour	Min Working Temp C°	Max Working Temp C°	Hardness Shore A	Tensil Mpa	Elongation %	Tack Free Times minutes	Max Cure 3mm Hrs @25°C
CALSIL ADH 3 TAW	Acetoxy	Paste		225	White	-60	300	40	2,31	240	2	7
CALSIL ADH 3 TAT	Acetoxy	Paste		304	Translucent	-60	250	39	2,32	280	4	7
CALSIL ADH 3 TAB	Acetoxy	Paste		270	Black	-60	300	38	2,30	290	4	7
CALSIL ADH 3 TAR	Acetoxy	Paste		255	Red	-50	300	35	2,50	410	4	7
CALSIL ADH 31 AW	Acetoxy	Flowable	210.000		White	-60	300	43	2,93	180	10	< 12
CALSIL ADH 33 AT	Acetoxy	Flowable	7.000		Translucent	-50	250	22	0,70	165	10	4
CALSIL ADH 31 AR2	Acetoxy 2 Parts	Paste	72 000 300 000		Red	-65	250	30	1,50	260	4	< 1
CALSIL ADH 1 TAT	Alkoxy	Paste		290	Translucent	-50	200	30	2,43	545	10	36
CALSIL ADH 1 TAB	Alkoxy	Paste		260	Black	-50	220	52	2,35	200	3	24
CALSIL ADH 11 AT	Alkoxy	Self leveling	40.000		Translucent	-62	200	27	1,80	400	18	< 72
CALSIL ADH 11 AG2	Alkoxy 2 Parts	Paste	380 000 26 000		Grey	-50	200	39	2,05	240	20	< 1
CALSIL ADH 42 W	Acetone	Paste		169	White	-50	220	35	2,20	388	2	< 24
CALSIL ADH 42 B	Acetone	Paste		170	Black	-50	220	35	2,00	320	2	< 24
CALSIL ADH 42 R	Acetone	Paste		180	Red	-50	300	50	1,70	270	4	8

\*not for sales specifications, please contact us prior to writing sales specs

For more information, please contact our nearest office

Caldic  
calsil@caldic.com

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