



TECHNICAL DATA SHEET

ALCOLIN SILICONE SEALANT

Description

ALCOLIN SILICONE SEALANT is a one-part acetoxy-curing silicone sealant that provides a permanent flexible watertight seal for general purpose sealing in and around the home.

Features & Benefits

- Non-sag
- Heat resistance
- Flexible at low temperatures
- Waterproof
- UV resistant
- Excellent colour fastness
- Moisture curing system
- Permanently elastic
- Mould resistant
- Chemical resistant
- can apply on vertical surfaces.
- can go up to +150°C.
- as low as -50°C.
- suitable for external applications.
- non-yellowing.
- clear grades are non-yellowing.
- cure rate is unaffected by low ambient temperatures.
- ideal for shock and vibration resistant bonding.
- suitable for use in damp areas e.g. showers, bathrooms.
- unaffected by alcohols, dilute acids and alkalis, soap or detergents.



Applications

- Ideal for sealing, bonding and mending in cars, boats, caravans, and houses.
- Ideal for sealing around bathroom and kitchen fittings i.e. baths, showers, sinks and toilets.
- For sealing window frames, boards, signs and insulating appliances.
- Fixing leaking plumbing.

Adhesion

ALCOLIN SILICONE SEALANT exhibits excellent primerless adhesion to many non-porous materials e.g. ceramics, glass, enamel, porcelain, coated wood, painted surfaces, canvas, stainless steel, aluminium, some rubbers and some plastics (epoxide, polyester, polyacrylate, polystyrene, formica, fiberglass, acrylics and rigid PVC).

Limitations

- Not suitable for alkaline surfaces such as concrete, fibrous cement, asbestos and plaster, as the product releases acetic acid during curing.
- Not suitable for some metals such as mild steel, lead, copper, tin, galvanized iron, brass or zinc as it may cause corrosion.
- May become discoloured in contact with some organic elastomers, which tend to bleed oil or solvents into the silicone, e.g. EPDM, APTK, Neoprene and Bituminous surfaces. Not suitable for contact with light coloured marble, granite, quartzite, and similar natural stone as it may discolour the surfaces.

- Not suitable for mirrors as it will de-silver the mirror backing, affecting the front appearance of the mirror.
- Will not adhere to some plastics such as polyethylene, polypropylene and Teflon.
- CANNOT be over-painted.
- **NOT SUITABLE FOR FISH TANKS** (contains a fungicide).
- Do not apply sealant when relative humidity is below 10% - cure rate will be affected.

Safety instructions

ALCOLIN SILICONE SEALANT is non-toxic however, it is advisable to wear gloves in order to avoid direct skin contact. In the event of skin or eye contact, rinse thoroughly and immediately with water. Seek medical assistance if irritation or discomfort persists. Avoid breathing in vapours. Always work in a well-ventilated area. Keep out of reach of children! Cured silicone rubber can be handled without any health risk. Refer to our Safety Data Sheets for further toxicological information and comprehensive handling instructions.

Surface preparation

- Surfaces coming into direct contact with ALCOLIN SILICONE SEALANT must be clean, dry, free from all loose materials, dust, dirt, oil, rust and any other contaminants.
- Non-porous substrates such as metals, glass and plastics should be degreased with a solvent. Plastics can be lightly abraded with emery paper. **On no account should any type of alcohol be used for surface cleaning – alcohols inhibit the cure of silicones.**
- Soaps or detergents used to clean the surface must be rinsed away thoroughly with clean water to ensure that all traces of the soaps are removed before sealing.
- Poor surface preparation may result in the delamination of the silicone.

Directions for use

1. Ensure surfaces are prepared as above.
2. Cut tip off cartridge and screw nozzle onto cartridge. Cut the tip of nozzle at an angle to achieve the desired bead size. Apply silicone with a caulking gun in a continuous bead to the prepared joint.
3. Use masking tape to get a clean, even sealant line and to eliminate cleaning difficulties on porous surfaces. Be sure to remove the tape before sealant begins to skin.
4. Smooth down after application (within 3 - 5 minutes) before skin formation occurs, by using a flat or rounded tool or even a finger, dipped in soapy water.
5. Sealant will be touch dry within 1 hour and reaches full cure after approximately 24 hours.
6. A pungent vinegar-like odour will be noted during application but will disappear as the sealant cures.
7. If the area being sealed, needs to be painted, ensure the paint has dried COMPLETELY before sealing.
8. The following formula is an approximate guideline in order to calculate yield for a standard 300ml cartridge:

$$L = \frac{300}{W \times D}$$

Where L = Length of sealant in meters per cartridge
 W = Width of joint in mm
 D = Depth of joint in mm

Cleaning

- Uncured silicone can easily be removed from hands or tools using a clean cloth soaked in solvent such as turpentine or paraffin. If removing uncured silicone from clothing, check fabric colour fastness before using the above-mentioned solvents.
- Sealant will be touch dry within 1 hour and reaches full cure after approximately 24 hours.
- When fully cured, sealant can be removed by mechanical means, i.e. using a sharp knife or chemically, using Silicone Stripper.

Storage stability

ALCOLIN SILICONE SEALANT has a shelf life of at least 24 months if stored in a cool (below 25°C), dry place in its original moisture-tight container. If the material is kept beyond the recommended shelf life, it is not necessarily unusable, but a check should be performed to observe whether the product is still workable, apply-able and uncured. To maximize the shelf life of the opened cartridge, we recommend that the nozzle be removed, and a piece of plastic placed over the cartridge tip after which the nozzle must be screwed back on. A large screw inserted into the nozzle tip also helps.

Product packaging

- 300ml Cartridge

Product data

i. Physical data – Uncured Silicone

Appearance		Homogenous non sagging paste in Clear, White, Black, Grey and Bronze
Tack free time	ASTM C-679-71	Approx. 10 - 15 minutes
Skin over time	BS 5889 Ap.A	Approx. 20 - 30 minutes
Curing time		Approx. 24 hours per 3-4mm
Slump	ISO 7390	0.00mm
Coverage - 280ml cartridge		11 metres (5mm x 5mm joint)
Packaging sizes		280ml cartridges
Shelf life		24 months when sealed and stored below 25°C

ii. Performance data – Cured Silicone

Service temperature range		Min. -50°C to Max. +150°C
Tensile strength	ISO 37	1.2 – 1.4 MPa
Modulus at 100% elongation	ISO 37	0.33 – 0.36 MPa
Movement accommodation factor		20%
Ultimate elongation	ISO 37	350 - 500%
Elastic recovery	ISO 7389	96%
Shore A hardness	ISO 868	14%