

Technical Data Sheet

Date of compilation: 07/03/2024

ARC GLAZING & CONSTRUCTION SILICONE

DESCRIPTION

Elastic single-component silicone sealant for indoor and outdoor use, with 25% maximum movement tolerance.

Curing system: Neutral curing

Benefits

- Elastic silicone-based sealant
- Low odour formulation
- Ageing and weather-resistant
- Good UV resistance
- Good adhesion also on metals and many plastics, compatible with copper



APPLICATION

For sealing joints and connecting joints in glass and window construction, in metal construction, in the sanitary sector, in roofing and plumbing works, in heating, ventilation and air-conditioning engineering.

AVAILABLE COLOURS

Clear, White, Grey, Anthracite, Rosewood, Brown & Black.

USAGE INSTRUCTIONS

Substrate pretreatment

The substrate must be dry, firm, and free of dust and grease (clean with isopropanol, if necessary). Porous substrates (e.g. concrete, plasterboard and untreated wood) must be primed. Before primer application, remove any cement slurry, mold release agents or impregnations. In renovation projects, old sealant, remains of paint and loose material must be fully removed. On coated substrates (paints, lacquers), compatibility to the sealant must be tested.

The joint must always be provided with a suitable, correctly dimensioned joint backing (e.g. PE cord, rock wool) to prevent adhesion on three faces. To avoid contamination and to achieve a precise joint, we recommend masking the joint edges with adhesive tape before primer application and filling.

Joint dimensions

Joint dimensions should be at least 5 x 5 mm for indoor and 10 x 8 mm (width x depth) for outdoor applications. With increasing joint width (up to 30 mm), joint depth should be roughly half the joint width. Make sure that triangular bevels have uniform sides of equal

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length with at least 7 mm bonding surface on each side.

Tooling

After applying the sealant with a suitable manual, battery-powered or pneumatic caulking gun, the sealant can be smoothed in the joint with water or with a neutral, non-staining waterbased smoothing agent and a suitable tool (e.g. jointing trowel).

Smoothing is not only recommended for optical reasons, but also establishes close contact and good adhesion to the substrate. Remove excess smoothing agent (risk of schlieren). Any adhesive tape used should be removed immediately after smoothing.

IMPORTANT REMARKS

The function of the sealant can only be guaranteed if correctly applied in accordance with the technical recommendations given in this data sheet and in related standards. Sealant application in situations with strongly fluctuating temperatures (premature stressing of the sealant) must be avoided.

The sealant is compatible with many paints and lacquers. Owing to the large number of different coating systems on the market, own tests concerning adhesion and compatibility have to be performed prior to application.

For example, it is known that alkyd resin based paints may give discolouration in combination with neutral curing silicones.

The sealant is not overpaintable especially on powder-coated substrates, adhesion has to be tested carefully, since it can be affected negatively depending on the coating used (may even vary for different colours of the same brand of powder coating).

In contact with bituminous, tar or plasticizer-releasing substrates (eg EPDM, neoprene, butyl), discolouration and/or loss of adhesion may occur. Good ventilation must be provided during application and curing to allow curing by-products to evaporate. Low temperatures, low humidities and joint depths above 15 mm can retard skin formation and curing significantly.

Exposure to liquid (eg acid-based cleaning agents, strongly colored liquids) or gaseous chemicals (eg. tobacco smoke) for longer periods can result in discoloration of the product, especially for light colors (white). In general, the mechanical properties of the sealant are not adversely affected.

Products with fungicide give additional protection against mould to the joint. But, they can not supersede good housekeeping: It's essential to keep the joint clean, dry and free from substances, that may serve as nutrition medium (eg soap residues, skin scales).

LIMITATIONS

- Not recommended for direct contact with the perimeter of insulation glass, the edges of

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laminated safety glass or the bedding in of double glazed units.

- Arc Glazing & Construction Silicone must not be used in aquarium construction, on marble/natural stone, as mirror adhesive, in underwater applications and in areas with direct food contact.
- Not suited for plastics with in general poor adhesion to silicones (eg PE, PP, PET).

TECHNICAL DATA

Property	Value
Density (DIN EN ISO 2811-1)	0.99 ± 0.04g/cm ³
Skin forming time (@23°C/50% RF)	≈ 7 min
Penetration(DIN 51579/5sec)	180 ± 30 1/10mm
Slump (ISO 7390)	≤2.5mm
Cure rate (within first 24 hours)	≈ 2mm
Shore A hardness (DIN 53505)	21 ± 5 units
Tensile strength (ISO 8339-A, 100%)	≈ 0.5N/mm ²
Maximum movement tolerance	25%
Application temperature (sealant & substrate)	+5°C to +35°C
Temperature stability (fully cured sealant)	-40°C to +180°C
Shelf life (unopened packaging)	18 months (+5°C to +35°C, 50% r.H.)

Rate of curing depends on temperature, humidity and depth of substrate. The data given refer to tests at standard conditions (23°C / 50% rel. humidity). Under these conditions, a 10 x 10 mm joint will cure in 8 to 14 days. Low temperature, low humidity and joint depth above 15 mm will retard skin formation and curing significantly. Data given were determined shortly after production, and may slightly vary with increasing age of product and for different colours. They are not meant for specification purposes.

HEALTH & SAFETY

Consult MSDS for full list of hazards.

NOTE

All products should be sold in accordance with the manufacturer's instructions. The manufacturer cannot be held responsible where conditions of use are beyond our control. Full information and advice is freely available from our Technical Services Department e-mail technical@arcbuildingproducts.ie. Whilst any information contained herein is to the best of our knowledge true and accurate, no warranty is given or implied in connection with any recommendations or suggestions made by us, our representatives, agents, or distributors, as the conditions of use and any labour involved are beyond our control. Our warranty is therefore limited to the quality of supplied product.