

# Technical Data Sheet

Date of compilation: 01/08/2023

## ARC PRO-LINE SILICONE

### DESCRIPTION

Arc Pro-Line Silicone is a premium grade sealant developed to complement the Pro-Line Grout range and available in 10 matching colours. It is an elastic, single-component silicone sealant for indoor and outdoor use, with 25% maximum movement tolerance.

**Curing System:** acetate-based curing



### SPECIAL PROPERTIES

- elastic silicone-based sealant
- ageing and weather-resistant, good UV resistance
- very good adhesion on glass, glazed surfaces (enamel, tiles) and anodized aluminium
- with fungicide

### FIELDS OF APPLICATION

For sealing joints and connecting joints in glass, window and metal construction, and in the sanitary sector.

Arc Pro-Line Silicone must not be used in aquarium construction, on marble/natural stone, as mirror adhesive, for underwater joints and in areas with direct food contact.

Not suited for plastics with in general poor adhesion to silicones (eg PE, PP, PET).

### YIELD

Meters of joint per 310 ml cartridge for the following joint dimensions:

5 x 5 mm ..... approx. 12.0 m

10 x 10 mm ..... approx. 3.0 m

### COLOURS AND PACKAGING

Standard colours: Pure White, Antique Ivory, Warm Beige, Stone Grey, Silver Grey, Atlantic Grey, Indian Sandstone, Platinum, Rosewood, Charcoal Black.

Packaging: 310 ml cartridges

### 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

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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 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 not overpaintable, compatibility with adjacent paints has to be tested by the user.

Acetic acid, released in small amounts during curing, may lead to corrosion on sensitive metals (copper, zinc coated metals, iron, steel (depending on the quality) and others). On alkaline substrates (concrete, grout), loss of adhesion and scum may occur. We recommend to use a neutral curing silicone on these substrates.

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.

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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 colours (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).

### CLEANING

Uncured material and tools can be cleaned by using soap & water. Cured material can only be mechanically removed. Hands can be cleaned with Wipes.

### TECHNICAL DATA

Density (DIN EN ISO 2811-1)	0.99 ± 0,04 g/cm <sup>3</sup>
Skin forming time (23°C/50% r.F)	app. 15 min
Penetration (DIN 51579 / 5 sec.)	150 ± 30 1/10 mm
Slump (ISO 7390)	≤ 2 mm
Cure rate (within first 24 hours)	≈ 3 mm
Shore A hardness (DIN 53505)	19 ± 5 units
Tensile strength ( ISO 8339-A, 100%)	≈ 0,5 N/mm <sup>2</sup>
Maximum movement tolerance	25 %
Application temperature (sealant & substrate)	+5 to +35°C
Temperature stability range (fully cured sealant)	-40 to +180°C
Shelf life (originally closed packages)	18 months (+5 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

For more information and precautions, refer to the safety data sheet.

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### 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](mailto: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.