

Technical Data Sheetswiftsupplies.com.au

Weicon Aqua-Flex is a specialised MS Polymer sealant and adhesive designed for wet, moist, damp and submerged areas. It can be applied directly to these wet areas and will still cure. It has a fast skin over time (approx. 25 minutes), good ageing and UV stability (suitable for outdoor use) and is completely free of silicones and solvents.

Aqua-flex remains permanently elastic after curing and maintains high adhesive strength to create permanent seals and bonds. It has good resistance to salt and sea water (though it shouldn't be used with chlorinated water) and is ISEGA recognised as an adhesive suitable for use in food processing applications.

[View This Product](#)**Applications**

- Sealing or bonding plastic foils or PVC sheet (such as pond liners)
- Sealing and bonding ventilation and air conditioning systems
- A permanently elastic adhesive for high humidity environments
- Sealing tubes, pipes and tanks
- Bonding and sealing wet, damp or submerged surfaces in marine environments
- Repairs to water tanks, aquariums or containers
- Roof and gutter sealing and bonding
- Sealing and bonding in sanitary applications where drying the surface is impractical
- Gardening and landscaping

Preparation of the Surface

To ensure good adhesion, the surface Aqua-Flex will be applied to must be clean and free of greases or oils. Surface contaminants like dust or dirt can be removed with general cleaners (or Weicon Surface Cleaner). For heavily soiled surfaces, Weicon Cleaner S or Weicon Gasket Remover may be more suitable.

Most types of materials can be bonded to with Weicon Aqua-Flex. That said, for certain materials (such as low surface energy plastics like polyethylene or PTFE) or extreme requirements the use of a primer may be necessary. More information on these is available from Swift Supplies. Alternatively, (and for very smooth surfaces) a mechanical surface pre-treatment (e.g. sanding or sand-blasting) can considerably improve adhesion.

Application

Aqua-Flex should be applied using a cartridge gun or automatic dosing system. To ensure optimum wetting of the surfaces, the parts must be joined before the first skin has formed on the adhesive. All Weicon elastic one part adhesives and sealants cure by reacting with humidity in the surrounding environment. The curing process starts at the surface of the adhesive and proceeds inwards from there. At 50% relative humidity and 23°C, the cure speed is approximately 3mm in the first 24 hours.

Adhesive bonds of large surfaces and high layer thicknesses cure more slowly as the humidity cannot penetrate as quickly towards the inside of the adhesive if the outer layers have already cured. Higher temperature and/or higher humidity accelerates curing while lower temperatures and/or lower humidity slows it down.

Important

The values listed here and the information presented should not be treated as a substitute for specific technical advice. We cannot warrant the products performance or suitability for particular applications.

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Technical Details
Properties

Basis	One Part MS Polymer
Viscosity	Pasty
Density	1.44 g/cm ³
Stability / Run-Off (ASTM D 2202)	1mm
Processing Temperature	+5°C to +40°C
Curing Temperature	+5°C to +40°C 30% to 95% Relative Humidity
Skin-Over Time	25 Minutes
Cure Speed (first 24 hours)	2-3mm
Volume Change (DIN 52451)	-1%
Gap Fill Max. Depth	5mm
Gap Fill Max. Width	25mm
Shore Hardness (DIN 53504 / ASTM D 412)	42 Shore A
Elongation at Break (DIN 53504 / ASTM D412)	650%
Tensile Strength of Sealant	3.3 N/mm ²
Average Tensile Shear Strength (DIN 53283)	2.1 N/mm ²
Tear Strength (DIN 53515 / ASTM D 624)	20 N/mm ²
Max. Movement Capacity	15%
Temperature Resistance (Continuous)	-40°C to +90°C
Temperature Resistance (Short-Term, 2 Hour Max.)	+130°C
Paintable (Liquid Paint)	Only using "wet in wet" within 3 hours (max.) after material application.
Building Material Category (DIN 4102)	B 2
Shelf Life (Stored at +5°C to +25°C)	12 Months

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Aqua-Flex Chemical Resistance After Curing

Acetic Acid (<5%)	+	Ketones	-
Acetone	-	Lyes (diluted)	+
Alcohol	O	Methanol	-
Ammonia (10%)	+	Methyl Ethyl Ketone	-
Antifreeze	+	Motor Oil (Mineral and Synthetic)	-
Caustic potash solution (20%)	O	+140°C	-
Citric Acid (10%)	-	Motor Oil (Mineral and Synthetic)	-
Concentrated Formic Acid	-	Naphtha	-
Concentrated Phosphoric Acid	-	Nitric Acid (5%)	-
Concentrated Silicon Oil	+	Paint Thinner	-
Cooling Lubricant (Water Dilutable)	+	Paraffin Oil	-
Diesel / Heating oil	-	Petrol (92 to 100 octane)	-
Edible Oil / Vegetable Oil	O	Phosphoric Acid (5%)	-
Ethanol	-	Salt Water / Sea Water	+
Freon	-	Sodium Hydroxide Solution (20%)	-
Gear Oil	-	Sulphuric Acid (5%)	-
Glycerine (glycol)	+	Toluene	-
Glycol Ether	-	Water	+
Hydraulic Oil	O	Water (90°C)	+
Hydrochloric Acid (5%)	-	Xylem	-
Hydrogen Peroxide (3%)	+		

+ = Resistant

O = Resistant for a Limited Time

- = Not Resistant

Storage

When stored unopened and in normal climatic conditions (23°C and 50% relative humidity) Weicon Aqua-Flex Underwater Sealant and Adhesive has a minimum shelf-life of 12 months.

Available Sizes

Weicon Aqua-Flex is available from Swift Supplies in 300gm tubes in White, Black or Grey.

White = RAL Colour Code 9003

Black = RAL Colour Code 9004

Grey = RAL Colour Code 7000

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