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Weicon Flex 310 M Classic Universal Sealant and Adhesive is a strong bonding, extremely versatile grade of adhesive sealant made in Germany. Flex 310 M contains no silicones or solvents and is based on MS polymers. It has excellent UV resistance (for outdoor use) and very good ageing stability for long term performance.

Flex 310 M Classic bonds very well to most materials and surfaces including wood, ceramic, metals, glass, stone, aluminium, stainless steel and many plastics. It creates high strength bonds that are permanently elastic and maintain their strength while tolerating some movement in the bonded parts.

Once cured, Flex 310 M can be sanded and is resistant to salt and fresh water. It is an ISEGA recognised sealant suitable for use in food processing applications.

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

- Tank sealing, construction and repairs
- Electrical repairs
- Sealing around light fittings
- Shop fitting and displays
- Plastic processing
- Automotive, aerospace and marine interior work
- Boat and yacht construction
- Heating, air conditioning and ventilation work
- Metal construction
- Anywhere silicone adhesives are not suitable or permitted

Preparation of the Surface

To ensure good adhesion, the surface Flex 310 M 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 Flex 310 M. 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

Flex 310 M should be applied using a cartridge gun or automatic dosing system. To ensure optimum wetting and therefore adhesion to the surfaces, the parts being bonded 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

Important

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have already cured. Higher temperature and/or higher humidity accelerates curing while lower temperatures and/or lower humidity slows it down.

Technical Details

Properties

Basis	One Part MS Polymer (1K – Polyoxypropylene)
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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Weicon Flex 310 M Classic 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 Flex 310 M Classic Universal Sealant and Adhesive has a minimum shelf-life of 12 months.

Available Sizes

Weicon Flex 310 M is available from Swift Supplies in 310ml 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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