

Technical Data Sheetswiftsupplies.com.au

Weicon Flex 310 M HT 200 High Temperature Sealant is a specialised grade of adhesive sealant designed for high temperature bonding and sealing. It is able to withstand exposure to 180°C for 45 minutes or 200°C for 30 minutes. This has led to its widespread usage in bonding parts that are being powder coated (it can be powder coated too).

Flex 310 M HT 200 bonds very well to almost all metals and is grey in colour to match in with the surrounding metals. It contains no silicones, solvents, halogens or isocyanate and has excellent aging stability and UV resistance for long term performance indoors or outdoors.

Once cured, Flex 310 M HT 200 can be sanded and is resistant to salt and fresh water.

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

- Bonding and sealing metal parts that are being powder coated or thermal coated
- Bonding and sealing ventilation and air conditioning systems
- Container and tank construction
- Wagon and vehicle repairs
- Automotive, aerospace and marine interior work
- Metal construction
- Anywhere silicone adhesives are not suitable or permitted

Preparation of the Surface

To ensure good adhesion, the surface Flex 310 M HT 200 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 HT 200. 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 HT 200 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 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 (1K – Polyoxypropylene)
Viscosity	Pasty
Density	1.41 g/cm ³
Stability / Run-Off (ASTM D 2202)	<1mm
Processing Temperature	+5°C to +35°C
Curing Temperature	+5°C to +40°C 30% to 95% Relative Humidity
Skin-Over Time	10 Minutes
Cure Speed (first 24 hours)	3-4mm
Shore Hardness (DIN 53504 / ASTM D 412)	55 Shore A
Elongation at Break (DIN 53504 / ASTM D412)	400%
Tensile Strength of Sealant	3.2 N/mm ²
Average Tensile Shear Strength (DIN 53283)	2.1 N/mm ²
Tear Strength (DIN 53515 / ASTM D 624)	21 N/mm ²
Temperature Resistance (Continuous)	-40°C to +90°C
Temperature Resistance (Short-Term, 45 Minutes Max.)	+180°C
Temperature Resistance (Short-Term, 30 Minutes Max.)	+200°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 HT 200 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 HT 200 Adhesive has a minimum shelf-life of 12 months.

Available Sizes

Weicon Flex 310 M HT 200 is available from Swift Supplies in 310ml cartridges.

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