Silicone F



Liquid | self-levelling | neutral cure

The coating and casting compound WEICON Silicone F is liquid, self-levelling, spreadable, solvent-free, neutral-curing, weathering-, ageing-, and temperature-resistant up to +180 °C (+356 °F) and suitable for universal use.

It can be used for elastic bonds, insulation and impregnation and even for the sealing and casting (max. 10 mm) of technical components. It adheres well to steel, aluminium, glass, ceramics, and many other materials.

The product can be used in machine and system construction, in plastic processing, the energy and electrical industry, in exhibition construction and shopfitting, and in many other industrial areas.

Characteristics		
Base		1-C. polysiloxane (oxime)
Texture		liquid
Colour		transparent, colourless
Cure type		moisture-curing
Can be painted		no
Building material class	DIN 4102	B 2
Minimum shelf life	at room temperature	12 mon.
Processing		
Curing condition		from +5°C to +40°C and 30% to 95% rel. air air humidity
Curing speed	in the first 24 h	2 -3 mm
Viscosity		30.000 mPa·s
Density		1,03 g/cm³
Gap bridging up to max.		3 mm
Curing		
Skin-over time		15 min.

Mechanical properties after curing		
Tensile strength	ISO 37	1,8 N/mm²
Elongation at break (tensile)	ISO 37, S3A	600 %
Elongation at 100 %	ISO 37 S3A	0,2 N/mm²
Movement absorption max.		20 %
Hardness (Shore A)	DIN ISO 7619	10±5
Volume change	DIN 52451	4 %
Thermal parameters		
Temperature resistance		-50°C to +180°C
Thermal conductivity		0,2 W/m·K
Electrical parameters		
Resistance		$1 \cdot 10^{14}$ Ω·m
Dielectric strength		17,0 kV/mm
Approvals / Guidelines		
MIL-Spec	complies with	MIL-A-46106B Group I Typ 2

Surface Pre-Treatment

Surfaces must be clean and free of grease. Many surface soilings, such as oil, grease, dust and dirt can be removed with WEICON Surface Cleaner. For heavily soiled metal surfaces, we recommend Cleaner Spray S; for removing old colour residues or adhesive residues, WEICON Sealant and Adhesive Remover is ideal. Most materials can be bonded to and among each other. For certain materials or special requirements, we recommend the use of a bonding agent (primer). Mechanical surface pre-treatment e.g. by grinding or sanding can also improve the adhesion considerably.

Application

Application methods

Cartridge gun for 310 ml cartridges, compressed air gun, we recommend a version with piston rod (WEICON Compressed Air Cartridge Gun), automatic dosing systems.

Joining the components

In order to guarantee and ideal wetting, the bonding parts need to be joined, before the adhesive skins over (skin-over time).

Storage

Store in the unopened original container at room temperature. Avoid sources of heat and direct sunlight.

Instructions for use

When using WEICON products, the physical, safety-related, toxicological and ecological data and regulations in our EC safety data sheets (www.weicon.com) must be observed.

Note
The specifications and recommendations given in this technical data sheet must not be seen as guaranteed product characteristics. They are based on our laboratory tests and on practical experience. Since individual application conditions are beyond our knowledge, control and responsibility, this information is provided without any obligation. We do guarantee the continuously high quality of our products. However, own adequate laboratory and practical tests to find out if the product in question meets the requested properties are recommended. A claim cannot be derived from them. The user bears the only responsibility for non-appropriate or other than specified applications.

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Elastic adhesives and sealants
Silicones

Silicone F

Accessories

10025241 V-Joint Nozzle, 1 PCE
10020751 Cartridge Gun Special, 1 PCE
10000441 Cartridge Gun, 1 PCE
10101992 Clip Nozzle Green Tube, 1 PCE, transparent
10059792 Pressure gun Airflow 3, 1 PCE

Available sizes

10000492 Silicone F, 310 ml, transparent, colourless

To the product detail page:

Chemical resistance after curing* (Excerpt)

Acetaldehyde	-	Methanol	o
Acetone	o	Methyl ethyl ketone (MEK)	o
Formic acid >10 % (methanoic acid)	o	Lactic acid 40 %	+
Ammonia 10 %	+	Engine oil min./synth.	o
Ammonia, anhydrous	-	Sodium carbonate (soda)	+
Aniline	-	Sodium hydroxide solution 10 %	o
Petrol (92-100 octane)	-	Heating oil, diesel	-
Acetic acid 10 %	+	Phosphoric acid 5 %	o
Acetic anhydride	-	Nitric acid <5%	o
Ethanol	+	Concentrated hydrochloric acid	-
Ethylene glycol	+	Hydrochloric acid <10 %	o
Antifreeze	+	Salt water / Sea water	+
Gear oil	-	Sulphuric acid 10 %	+
Glycerine / Glycol	+	Concentrated sulphuric acid	-
Hexane	-	Silver nitrate	+
Hydraulic oil	o	Cooking oil / vegetable oil	+
Isopropanol	+	Toluene	-
Potassium hydroxide 10 %	+	Water	+
Potassium hydroxide 20 %	-	Tartaric acid	+
Potassium salt dry	+	Xylene	-
Coolant, aq.	+	Citric acid 10 %	+

+ = resistant 0 = for a limited time (preliminary tests or resistance tests are recommended) - = not resistant *Storage was carried out at a chemical temperature of +20°C.

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