GB

Elastic Adhesives and Sealants

www.weicon.com

MS-Polymers

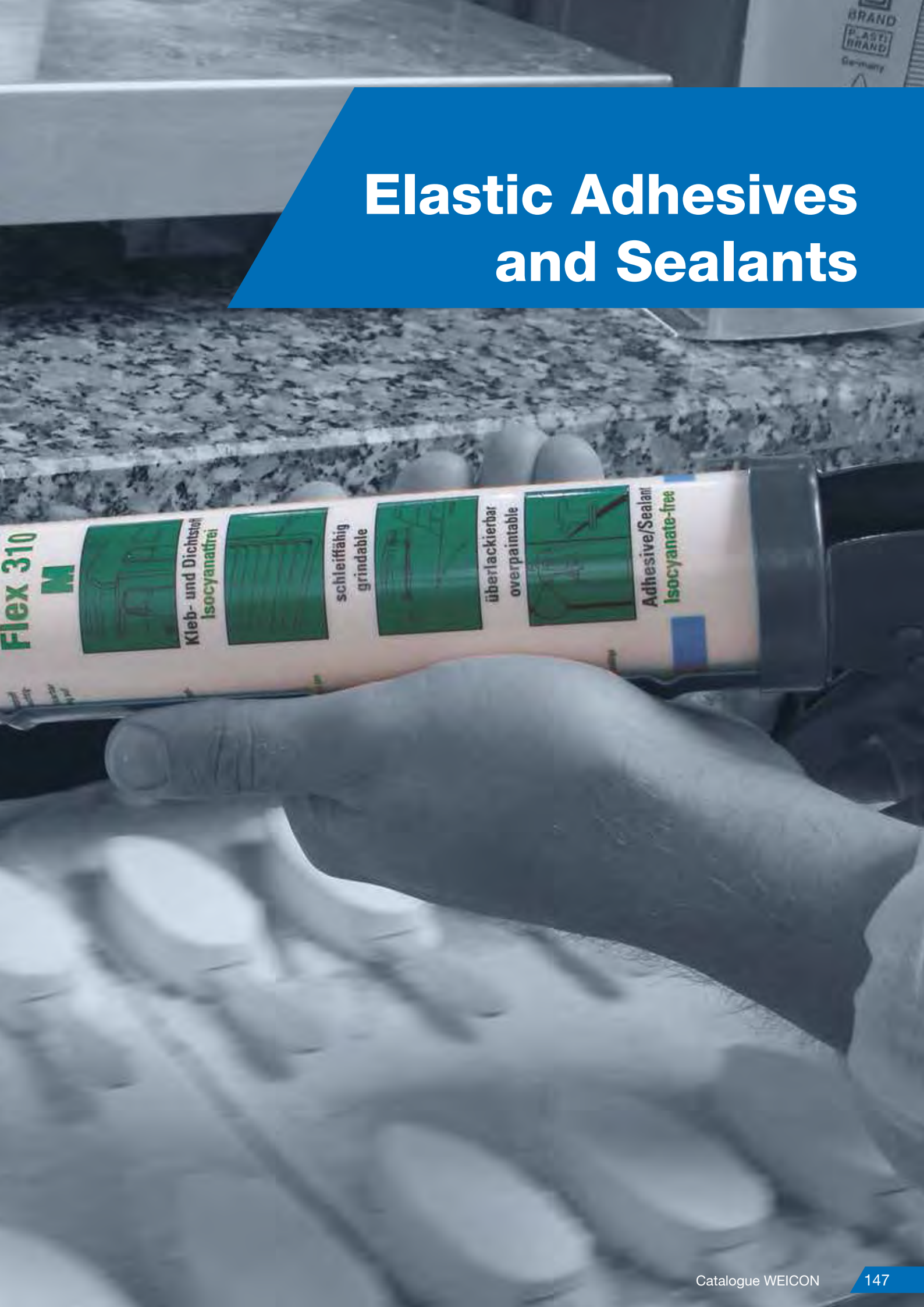
Bonding agent

Polyurethanes

Silicones

Contact adhesives

Elastic Adhesives and Sealants



Elastic Adhesives and Sealants

Elastic adhesives and sealants are used today in many areas of industrial production and assembly. They combine the advantages of adhesive bonding and sealing technology and are used wherever the elasticity and the sealing of a joint are the most important requirements.

The focus of such applications is generally not an extremely high load transmission. Rather, dynamic loads like vibrations and expansion of the joined parts are to be absorbed and compensated. The use of elastic adhesives and sealants offers the following advantages for the user:

- Reduction and compensation of tensions, which result due to different thermal expansion of differing materials (metal/plastic, metal/wood, metal/glass, etc.)
- Compensation of joint part tolerances
- Avoidance of material fatigue and breaks due to an even distribution of tension
- No thermal or mechanical impairment, and therefore no weakening of the jointed parts
- Prevents the unwanted penetration or escaping of materials, even with larger joints or adhesive gaps
- Material-integrated joints between the parts

WEICON adhesive and sealants are classified in three product groups with a differing chemical basis.

MS polymers:
- Strong adhesives and sealants for material-integrated joints of metals, plastics and many other substances
- High adhesive power, even without the use of adhesive primers
- Can be painted over (“wet in wet”)
- Free of silicone and isocyanate

Polyurethanes:
- Adhesives and sealants for a broad range of applications in the fields of metals and plastics processing
- Can be painted over (after curing)
- Sandable
- Silicone-free
- Odourless curing

Silicones:
- High-quality sealants for industrial applications
- Excellent UV, weathering and media resistance
- Resistant to aging
- Can be used in the temperature range up to + 300°C *(+572°F)*

Elastic Adhesives and Sealants

Optimum bonding results with elastic one-component adhesives and sealants from WEICON are dependent on the careful preparation of the surfaces. Dust, dirt, rust, oil and lubricants and other impurities (e.g. release agent) have a negative effect on adhesion.

Therefore, the following points must always be observed prior to use:

Surface preparation

The surfaces must be clean and grease-free. Many surface contaminants, e.g. oil, dust and dirt, can be removed with WEICON Surface Cleaner.

For heavily soiled metal surfaces, we recommend WEICON Cleaner Spray S; WEICON Sealant and Adhesive Remover is suitable for removing old paint or adhesive residues.

Surface pretreatment

Most materials can be bonded well to themselves and among each other. For certain materials or extreme requirements, we recommend the use of an adhesion agent (primer).

A mechanical surface pretreatment, e.g. sanding or sand-blasting, can considerably improve the adhesion.

Application

WEICON elastic one-component adhesives and sealants are supplied either in tubes or in Euro cartridges (Black- Seal also in 200 ml press pack). Euro cartridges are processed with a cartridge gun or with automatic dosing systems.

WEICON Speed-Flex should be applied only with professional-quality cartridge guns (WEICON Cartridge Gun „Special“).

Joining the parts to be bonded

To ensure optimum wetting, the parts must be joined before the first skin has been formed on the adhesive (skin-over time).

Curing

All elastic one-component adhesives and sealants from WEICON cure under the influence of humidity. The curing process starts at the surface and proceeds toward the inside. At 50 % relative humidity and +23°C *(+73°F)*, the cure speed is approx. 3 mm in the first 24 hrs.

The 2-K system cures through the chemical reaction (polimerisation) of the two components. Adhesive bonds of big surfaces and high layer thicknesses cure more slowly since the humidity can not penetrate so fast to the inside if the outer layers have already cured.

Higher temperatures or higher humidity accelerate the curing, while lower temperatures or low humidity slow it down.

Resistance

WEICON elastic one-component adhesives and sealants are resistant to a large number of media when applied properly and after complete curing.

Storage

When unopened and stored in a normal climate (+23°C/+*73°F* and 50 % rel. humidity), WEICON elastic one-component adhesives and sealants have a shelf life of 9 - 12 months, depending on the type.

Flex 310 M® Classic

Suitable for universal use

WEICON Flex 310 M Classic adhesive and sealant is strong, overpaintable (wet in wet), sandable, has outstanding aging stability and good resistance to UV rays. It is resistant to freshwater and salt water and is free of silicone, isocyanate, halogens or solvents.

The product has an ISEGA certificate and can be used as an adhesive in food technology.

Flex 310 M Classic is an elastic adhesive on an MS polymer basis and is suitable for the bonding of metals, many plastics, ceramic, wood, glass and stone.

WEICON Flex 310 M Classic can be used in metal construction, tank and apparatus engineering, carriage, vehicle and container construction, ventilation and air conditioning systems, in the electrical industry, yacht and boat construction and in all applications where silicones or products containing silicones are not suitable.

310 ml ✓ 13303310

310 ml ✓ 13305310

310 ml ✓ 13304310

*corresponds approximately to the specified RAL colours

ISEGA
Certificate of Conformity as an adhesive in food technology.

Technical Data

Basis	1 K-Polyoxypropylene
Density	1,44 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	25 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore Hardness A (DIN 53505/ASTM D 2240) ±5	42
Elongation at break (DIN 53504/ASTM D412)	650 %
Tensile strength of the pure adhesive/sealant	3,3 N/mm² *(479 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	2,1 N/mm² *(305 psi)*
Tear strength (DIN 53515/ASTM D 624)	20 N/mm² *(2.900 psi)*
Movement capacity max.	15 %
Temperature resistance	-40 to +90°C *(-40 to +194°F)* briefly to +130°C *(+266°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest after material app
Building material category (DIN 4102)	B 2

MS-Polymers

ISEGA
Certificate of Conformity as an adhesive in food technology.

Technical Data

Basis	1 K-Polyoxypropylene
Density	1,06 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	40
Elongation at break (DIN 53504/ASTM D412)	300 %
Tensile strength of the pure adhesive/sealant	3,0 N/mm² *(435 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	2,0 N/mm² *(290 psi)*
Tear strength (DIN 53515/ASTM D 624)	19 N/mm² *(2.755 psi)*
Movement capacity max.	20%
Temperature resistance	-40 to +90°C *(-40 to +194°F)* briefly (approx. 2 hours) to +120°C *(+248°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest after material app
Building material category (DIN 4102)	B 2

310 ml
13308310
transparent

Flex 310 M® Crystal

Crystal-clear curing

WEICON Flex 310 M Crystal adhesive and sealant is transparent, strong, overpaintable (wet in wet), sandable, has outstanding aging stability and good resistance to UV rays. It is resistant to freshwater and salt water and contains no silicone, isocyanate, halogens or solvents.

WEICON Flex 310 M Crystal has an ISEGA certificate and can be used as an adhesive in food technology.

WEICON Flex 310 M Crystal is an elastic adhesive on an MS polymer basis and is suitable for the bonding of glass, PC*, PMMA* and acrylic glass*, metals, many plastics, ceramics, wood and stone. The product is crystal clear after curing and is particularly suited for elastic joints where the adhesive should or must not be visible.

Flex 310 M Crystal can be used in plastic processing, metal construction, tank and apparatus engineering, in ventilation and air conditioning systems, the electrical and lighting industry, in exhibition stand construction and shopfitting and in all applications where silicones or products containing silicones are not suitable.

* = Only tension-free bonding

Bonding of wall elements in the interior construction of an exhibition hall

Flex 310 M® Stainless-Steel

Suitable for universal use

WEICON Flex 310 M Stainless-Steel adhesive and sealant is non-corrosive, strong, overpaintable (wet in wet), sandable, resistant to ageing and UV rays and is free of silicone, isocyanate, halogens or solvents.

WEICON Flex 310 M Stainless-Steel has an ISEGA certificate and can be used as an adhesive in food technology.

WEICON Flex 310 M Stainless-Steel is an elastic adhesive on MS polymer basis and is suitable for bonding and sealing of seams and joints on metals such as stainless steel, aluminium and non-ferrous metals.

Flex 310 M Stainless-Steel can also be used in all application fields where the colour of the adhesive and sealant must match the surface material (e. g. stainless steel, aluminium, etc.).

290 ml
13656290
stainless steel:
RAL 9023*

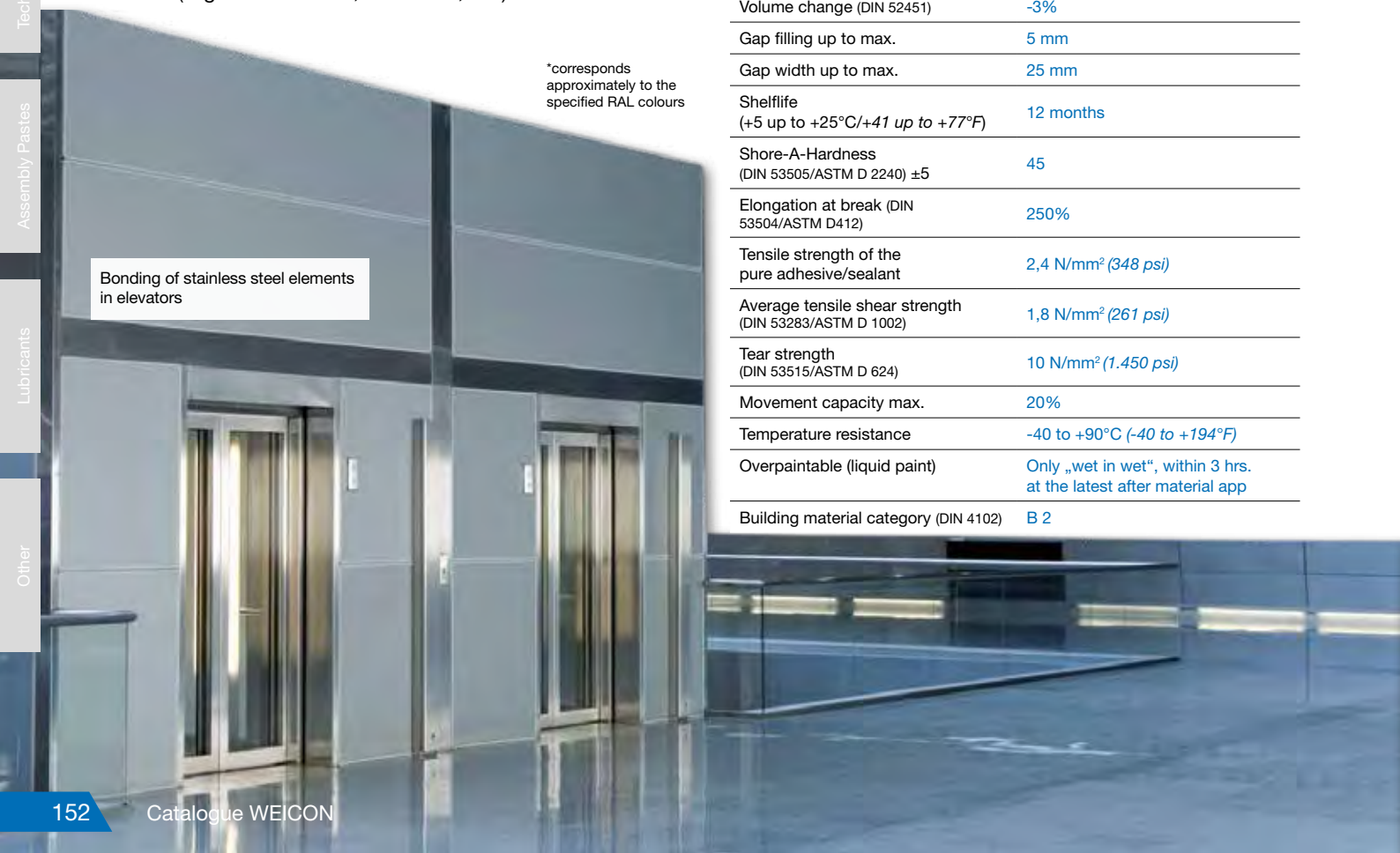
*corresponds approximately to the specified RAL colours

ISEGA
Certificate of Conformity as an adhesive in food technology.

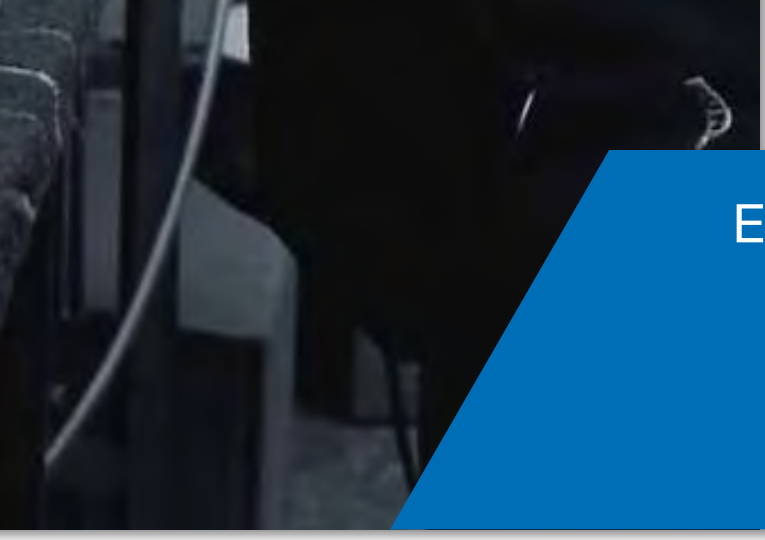
WEICON Flex 310 M Stainless-Steel can be used in metal construction, tank and apparatus engineering, food industry, in kitchen and sanitary installations, ventilation and air conditioning systems, and in all applications where silicones or products containing silicones are not suitable.

Technical Data

Basis	1 K.-MS Polymer
Density	1,06 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-3%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	45
Elongation at break (DIN 53504/ASTM D412)	250%
Tensile strength of the pure adhesive/sealant	2,4 N/mm² *(348 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,8 N/mm² *(261 psi)*
Tear strength (DIN 53515/ASTM D 624)	10 N/mm² *(1.450 psi)*
Movement capacity max.	20%
Temperature resistance	-40 to +90°C *(-40 to +194°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest after material app
Building material category (DIN 4102)	B 2



Bonding of stainless steel elements in elevators



MS-Polymers

Flex 310 M® Super-Tack

High initial strength

WEICON Flex 310 M Super-Tack adhesive and sealant is very strong, non-corrosive, overpaintable (wet in wet), sandable, weather-resistant, resistant to UV rays and is free of silicone, isocyanate, halogens or solvents. Flex 310 M Super-Tack is a strong, elastic adhesive on an MS polymer basis. Both the very high initial bonding power and the fast development of adhesive strength enable bonds to be achieved even on vertical surfaces.

WEICON Flex 310 M Super-Tack is suitable for the bonding of metals, many plastics, ceramics, wood, glass and stone. It replaces screws, pegs, rivets and other traditional fixings.

Flex 310 M Super-Tack can be used for drywall and interior work, in metal construction, tank and apparatus engineering, ventilation and air conditioning systems, in yacht and boat constructions, exhibition stand construction and shopfitting and in all applications where silicones or products containing silicones are not suitable.

Technical Data

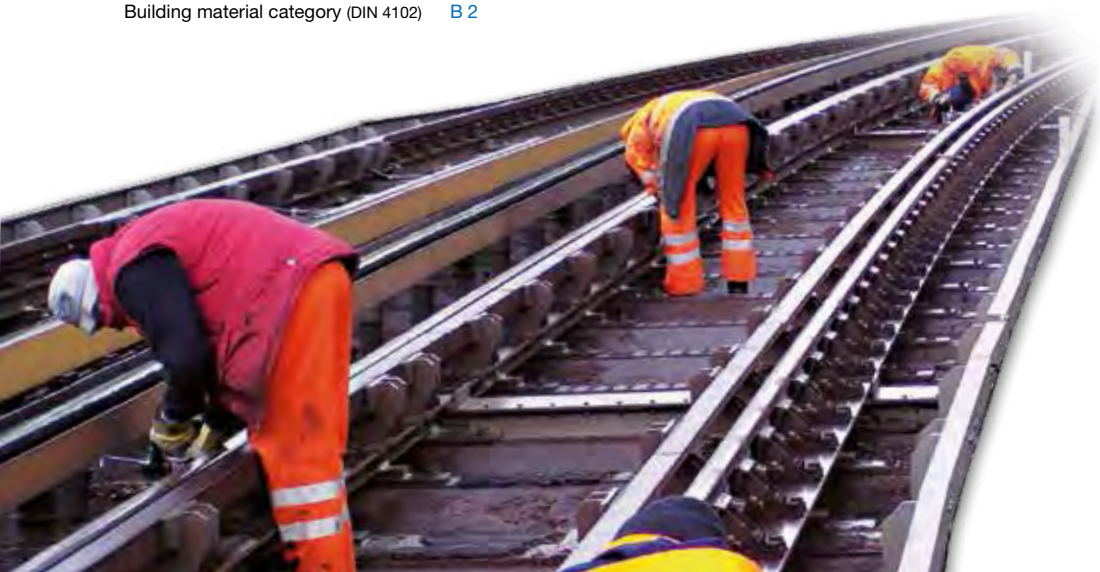
Basis	1 K.-MS Polymer
Density	1,62 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-2%
Gap filling up to max.	10 mm
Gap width up to max.	30 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	50
Elongation at break (DIN 53504/ASTM D412)	600%
Tensile strength of the pure adhesive/sealant	1,9 N/mm² *(276 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,5 N/mm² *(218 psi)*
Tear strength (DIN 53515/ASTM D 624)	13 N/mm² *(1.885 psi)*
Movement capacity max.	20%
Temperature resistance	-40 to +90°C *(-40 to +194°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest after material app
Building material category (DIN 4102)	B 2

290 ml
13650290

white: RAL 9003*

290 ml
13652290

grey: RAL 7000*



*corresponds approximately to the specified RAL colours

Flex 310 M® HT 200

High temperature resistant

The ideal adhesive for
POWDER-COATING

The high temperature resistance makes it possible to bond and seal components needing to be subsequently thermal-coated (powder-coated).

WEICON Flex 310 M HT 200 can be used in metal construction, tank and apparatus engineering, in ventilation and air conditioning systems, carriage, container, wagon and vehicle construction.

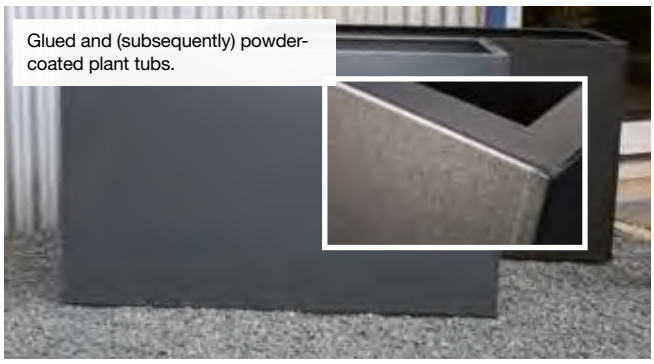
WEICON Flex 310 M HT 200 adhesive and sealant is highly temperature resistant, has outstanding ageing resistance, and is free of silicone, isocyanate, halogens or solvents.

310 ml
13655310
grey: RAL 7000*

*corresponds approximately to the specified RAL colours

Technical Data

Basis	1 K.-MS Polymer
Density	1,41 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	with humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	3-4 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	55
Elongation at break (DIN 53504/ASTM D412)	400%
Tensile strength of the pure adhesive/sealant	3,2 N/mm² *(464 psi)*
Tear strength (DIN 53515/ASTM D 624)	21 N/mm² *(3.045 psi)*
Temperature resistance	-40 to +90°C *(-40 to +194°F)* (permanently), 45 min. +180°C *(+356°F)*, 30 min. +200°C *(+392°F)*
Thermal coating / powder coating	only after total cure (cure speed, see above)
Building material category (DIN 4102)	B 2



Glued and (subsequently) powder-coated plant tubs.

Left side: uncoated. Right side: powder-coated material.

MS-Polymers

Flex 310 M® 2 K

Fast-curing

The WEICON Flex 310 M 2 K adhesive and sealant is very strong, non-corrosive, overpaintable (wet in wet), sandable, weather-resistant, resistant to UV rays and is free of silicone, isocyanate, or solvents.

Flex 310 M 2 K is a strong 2-component system on a hybrid polymer basis which enables full-surface bonding of larger parts and which can be used to fill gaps of up to ten millimetres. It is suitable for the bonding of almost all materials such as metal and many plastics.

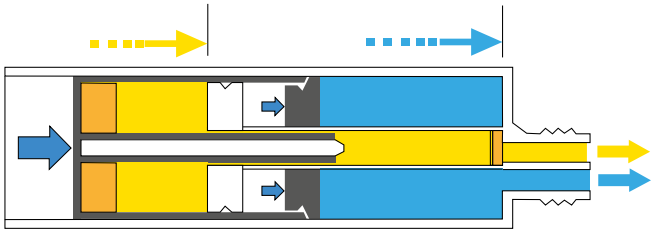
WEICON Flex 310 M 2 K can be used in metal construction, tank and apparatus engineering, machine and system construction, in the furniture industry, in ventilation and air conditioning systems, in the electrical industry, yacht and boat construction and in all applications where silicones or products containing silicones are not suitable.

250 ml
13305250
grey

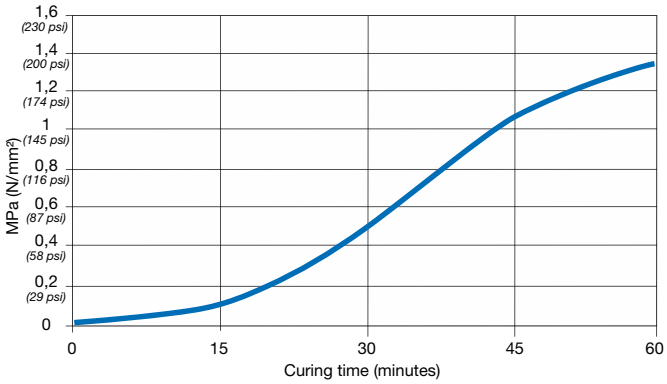
Special Mixing Nozzle
13309997

Technical Data

Basis	2-K-hybrid-Polymer
Density	1,40 g/cm³
Viscosity	solid paste
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Pot life (at +23°C/*+73°F* and 50% rel. air humidity)*	approx. 5 min.
Working time*	approx. 10 min.
Set to load bearing*	approx. 60 min.
Cure type	chemical polymerisation
Volume change (DIN 52451)	approx. -1%
Gap filling up to max.	10 mm
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	40
Elongation at break (DIN 53504/ASTM D412)	350%
Tensile strength of the pure adhesive/sealant	2,2 N/mm² *(319 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,3 N/mm² *(189 psi)*
Temperature resistance	-40 to +90°C *(-40 to +194°F)*
Building material category (DIN 4102)	B 2 (normally inflammable)



Strength development Flex 310 M 2 K



WEICON Flex 310 M® 2 K fast-curing in non-cured condition		
Chemical basis		2-K-hybrid-Polymer
Density g/cm³ (DIN 53504)		1,40
Viscosity		solid paste
Mixing ratio (volume)		1 : 1
Processing temperature		+5°C to +35°C *(+41 to +95°F)*
Cure type		chemical polymerisation
Pot life*¹		approx. 5 minutes
Final hardness*¹		approx. 60 minutes
Volume change (DIN 52451)*¹		approx. -1 %
Gap filling		1,0 mm to max 10,0 mm
WEICON Flex 310 M® 2 K fast-curing in cured condition		
Shore-A-Hardness (DIN 53505 / ASTM D 2240) +/- 5)		40
Elongation at break % (DIN 53504 / ASTM D 412)		350
Tensile strength of the pure adhesive/sealant (DIN 53504 / ASTM D 412)		2,2 N/mm² *(320 psi)*
Average tensile shear strength*² (DIN 51504)		1,3 N/mm² *(190 psi)*
Fungicide		No
Temperature resistance		-40°C to +90°C *(-40 to +194°F)*
36 months outdoor exposure test	UV resistance	good
	Discolouring	slight
	Crack formation	none
	Dust absorption	slight
Building material category		B 2 (normally inflammable)

85 ml
13350085
white: RAL 9003*

85 ml
13352085
black: RAL 9004*

85 ml
13351085
grey: RAL 7000*

85 ml
13353085
transparent

*corresponds approximately to the specified RAL colours

13359185

Sales display

with each 5 x 85 ml in the colours:

white,
black,
grey and
transparent

Elastic Adhesives and Sealants

MS-Polymers

Flex+bond®

Highly elastic and strong

WEICON Flex+bond is strong, permanently elastic, temperature resistant from -40°C to +90°C (up to +130°C for short periods), weather resistant, resistant to UV rays, over-paintable (wet in wet), sandable, and resistant to ageing and salt water. It is free of silicone, isocyanate, halogens and solvents.

WEICON Flex+bond has an ISEGA certificate and can be used as an adhesive in foodstuff technology.

WEICON Flex+bond can be used to bond nearly all materials to themselves and among each other such as metal, wood, plastic, glass, and ceramics.

Technical Data

	white, black, grey	transparent
Basis	1 C.-Polyoxypropylene	
Density	1,44 g/cm³	1,06 g/cm³
Viscosity	pasty	
Stability/Run-off (ASTM D 2202)	1 mm	<1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*	
Cure type	by humidity	
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30 % to 95 % rel. humidity	
Skin-overtime	25 min.	10 min.
Cure speed (first 24h)	2-3 mm	
Volume change (DIN 52451)	-1 %	
Gap filling up to max.	5 mm	
Gap width up to max.	25 mm	
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months	
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	42	40
Elongation at break (DIN 53504/ASTM D412)	650%	300%
Tensile strength of the pure adhesive/sealant	3,3 N/mm² *(479 psi)*	3,0 N/mm² *(435 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	2,1 N/mm² *(305 psi)*	2,0 N/mm² *(290 psi)*
Tear strength (DIN 53515/ASTM D 624)	20 N/mm² *(2.900 psi)*	19 N/mm² *(2.755 psi)*
Movement capacity max.	15 %	20 %
Temperature resistance	-40 to +90°C *(-40 to +194°F)*	
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest material app	
Building material category (DIN 4102)	B 2	

ISEGA

Certificate of Conformity as an adhesive in food technology.

Solar-Flex®

Developed for solar industry

WEICON Solar-Flex® is strong, non-corrosive, overpaintable (wet in wet), weather-resistant and resistant to UV rays. It is free of silicone, isocyanate, halogens and solvents.

WEICON Solar-Flex® is an elastic adhesive on a MS polymer basis specially developed for the solar industry.

Both the very high initial bonding power and the fast development of adhesive strength enable bonds to be achieved even on vertical surfaces. Replaces traditional fixings in the assembly of solar and photovoltaic power systems.

290 ml
13750290
white: RAL 9003*

290 ml
13752290
grey: RAL 7000*

*corresponds approximately to the specified RAL colours

Technical Data

Basis	1 K.-MS Polymer
Density	1,62 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95 % rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-2 %
Gap filling up to max.	10 mm
Gap width up to max.	30 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	50
Elongation at break (DIN 53504/ASTM D412)	600%
Tensile strength of the pure adhesive/sealant	1,9 N/mm² *(276 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,5 N/mm² *(218 psi)*
Tear strength (DIN 53515/ASTM D 624)	13 N/mm² *(1.885 psi)*
Movement capacity max.	20%
Temperature resistance	-40 to +90°C *(-40 to +194°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest
Building material category (DIN 4102)	B 2

KUNSTSTOFF INSTITUT LÜDENSCHEID

TÜVRheinland®
Genau. Richtig.

MS-Polymers

ISEGA
Certificate of Conformity as an adhesive in food technology.

Technical Data

Basis	1 K.- MS Polymer
Density	1,60 g/cm³
Viscosity	extremely pasty
Stability/Run-off (ASTM D 2202)	<1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	10 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1 %
Gap filling up to max.	5 mm
Gap width up to max.	5 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	58
Elongation at break (DIN 53504/ASTM D412)	230%
Tensile strength of the pure adhesive/sealant	2,2 N/mm² *(319 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,3 N/mm² *(189 psi)*
Tear strength (DIN 53515/ASTM D 624)	10 N/mm² *(1.450 psi)*
Movement capacity max.	15%
Temperature resistance	-40 to +80°C *(-40 to +176°F)*, briefly (approx. 2 hours) to +120°C *(+248°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest
Building material category (DIN 4102)	B 2

310 ml
13600310
white: RAL 9003*

310 ml
13602310
grey: RAL 7000*

*corresponds approximately to the specified RAL colours

Speed-Flex®

Replaces traditional fixings

WEICON Speed-Flex is very strong, pasty, stable, overpaintable (wet in wet), resistant to ageing, weathering, and UV rays and is free of silicone, isocyanate and halogen.

WEICON Speed-Flex has an ISEGA certificate and can be used as an adhesive in foodstuff technology.

WEICON Speed-Flex is an adhesive on an MS polymer basis with extremely strong initial strength and is suitable for the bonding of metals, many plastics, ceramics, wood, glass and stone.

Speed-Flex replaces traditional fixings such as screws, pegs, rivets, etc.
The very high initial strength makes bonding possible even on vertical surfaces in indoor and outdoor areas.

WEICON Speed-Flex can be used for drywall and interior work, metal construction, tank and apparatus engineering, in ventilation and air conditioning systems, in exhibition stand construction and shopfitting and in all applications where silicones or products containing silicones are not suitable.

Cartride gun
WEICON „Special“

Aqua-Flex

Ideal for wet and moist surfaces

WEICON Aqua-Flex adhesive and sealant is strong, overpaintable (wet in wet), has outstanding ageing stability, and is resistant to weathering, UV rays, freshwater and salt water. It is free of silicone, isocyanate, halogens or solvents.

Aqua-Flex has an ISEGA certificate and can be used as an adhesive in foodstuff technology.

WEICON Aqua-Flex is an elastic adhesive and sealant on MS polymer basis for wet and damp substrates. It is suitable for the bonding of numerous materials such as metal, plastic, ceramics, wood, glass and stone.

Aqua-Flex can be used for pipeline and cable work, tank and apparatus engineering, in ventilation and air conditioning systems, gardening and landscaping, in sanitary installations and in all applications where silicones or products containing silicones are not suitable.

310 ml
13700310
white: RAL 9003*

310 ml
13701310
black: RAL 9004*

310 ml
13702310
grey: RAL 7000*

*corresponds approximately to the specified RAL colours

ISEGA
Certificate of Conformity as an adhesive in food technology.

Technical Data

Basis	1 K.-MS Polymer
Density	1,44 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	25 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	42
Elongation at break (DIN 53504/ASTM D412)	650%
Tensile strength of the pure adhesive/sealant	3,3 N/mm² *(479 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	2,1 N/mm² *(305 psi)*
Tear strength (DIN 53515/ASTM D 624)	20 N/mm² *(2.900 psi)*
Movement capacity max.	15 %
Temperature resistance	-40 to +90°C *(-40 to +194°F)*, briefly (approx. 2 hours) +130°C *(+266°F)*
Overpaintable (liquid paint)	Only „wet in wet“, within 3 hrs. at the latest
Building material category (DIN 4102)	B 2

MS-Polymers

Primer

Bonding agent

WEICON Primer M 100 250 ml ✓
13550125

For pre-treating non-absorbent metal surfaces (aluminium, steel, stainless steel, brass, copper, zinc, tinplate), plastics (ABS, rigid PVC, PA 6.6, FRP, SMC, PUR), lacquered surfaces, enamel, ceramic, and glass

WEICON Primer K 200 250 ml ✓
13550225

For pre-treating non-absorbent and lacquered surfaces, plastic materials (ABS, rigid PVC, PA 6.6, FRP, SMC, PUR), metals (aluminium, steel, stainless steel, brass, zinc, tinplate) and elastomers (EPDM).

WEICON Primer S 300 250 ml ✓
13550325

For pre-treating absorbent and/or porous surfaces, like e.g. uncoated hardboards and plasterboards

WEICON Primer P 400 250 ml ✓
13550425

For pre-treating non-absorbent low-energy surfaces, like e. g. plastics (PE, PP, TPE) and elastomers (EPDM).

Woll cloth 13955050

For application of WEICON Primer.

Even without the use of a primer, WEICON Elastic Adhesives and Sealants (on the basis of MS and hybrid polymers) achieve good bonding results on most material surfaces.

In order to obtain an even higher bonding strength, special primers for different materials are available (see table). In applications with low-energy plastics like PE, PP, TPE, etc., satisfying bonding results are only possible if a primer is used.

The primers available from WEICON are adjusted to a variety of materials and their different surface structure.

Technical Data	M 100	K 200	S 300	P 400
Basis:	Synthetic resin, with solvents	Synthetic resin, with solvents	Polyurethane, with solvents	rubber, with solvents and chloric
Colour:	colourless, transparent	colourless, transparent	yellowish, transparent	amber, transparent
Content:	250 ml			
Density (g/cm³):	0,79	0,77	1,03	0,80
Consumption (g/m²):	20 - 40	20 - 40	80 - 200	20 - 60
Processing temperature:	+10°C to +25°C *(+50°F to +77°F)*	+10°C to +35°C *(+50°F to +95°F)*	+5°C to +25°C *(+41°F to +77°F)*	-15°C to +35°C *(+5°F to +95°F)*
Evaporation time (min):	approx. 10	approx. 10	approx. 60	approx. 10 - 60
Period of use (hrs.):	24	24	4	1
Suited for:	WEICON Adhesives and Sealants (except Silicones) WEICON Urethane			

Flex 310 PU

Polyurethane

WEICON Flex 310 PU adhesive and sealant is permanently elastic, strong, overpaintable, and resistant to weather, UV rays, freshwater and salt water. It is free of silicone.

Flex 310 PU is an elastic adhesive and sealant on Polyurethane basis (PUR) for the bonding and sealing of numerous materials such as metals, plastics, ceramics, wood, glass and stone.

Flex 310 PU can be used in tank and apparatus engineering, carriage, container and vehicle construction, in ventilation and air conditioning systems, the energy and electrical industry and in all applications where silicones or products containing silicones are not suitable.

300 ml	300 ml	300 ml
13300310	13301310	13302310
white: RAL 9003*	**black: RAL 9004***	grey: RAL 7000*

*corresponds approximately to the specified RAL colours

ISEGA
Certificate of Conformity as an adhesive in food technology.

Technical Data

Basis	1 K.-Polyurethane
Density	1,17 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*
Cure type	by humidity
Curing condition	+5 to +35°C *(+41 to +95°F)* and 40% to 70 % rel. humidity
Skin-overtime	45 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-6%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	9 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	45
Elongation at break (DIN 53504/ASTM D412)	450%
Tensile strength of the pure adhesive/sealant	2,0 N/mm² *(290 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,6 N/mm² *(232 psi)*
Tear strength (DIN 53515/ASTM D 624)	9 N/mm² *(1.305 psi)*
Movement capacity max.	10%
Temperature resistance	-40 to +90°C *(-40 to +194°F)*, briefly (approx. 2 hours) +120°C *(+248°F)*
Overpaintable (liquid paint)	„wet in wet“ or after complete curing
Building material category (DIN 4102)	B 2

Joint sealing at transition between MDF panel and zinc plate

Polyurethanes

Fast-Bond

Fast-curing, one-component structural and assembly adhesive for universal use on polyurethane basis (PUR)

Fast-Bond structural and assembly adhesive is strong, overpaintable, sandable, and resistant to weathering, UV rays, freshwater and salt water. It is free of silicone or solvents.

WEICON Fast-Bond is suitable for the bonding of MDF panels, wood panels, chipboards, fibre and plaster boards, concrete, marble, natural and artificial stone, ceramics, gypsum, metals and rigid foams.

310 ml
13309310

beige: RAL 9010*

*corresponds approximately to the specified RAL colours

Technical Data

Basis	1 K.-Polyurethane
Density	1,50 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	>1 mm
Processing temperature	+5 to +40°C *(+41 to +104°F)*
Cure type	by humidity
Curing condition	+5 to +35°C *(+41 to +95°F)* and 40% to 70% rel. humidity
Skin-overtime	3 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	Increase %
Gap filling up to max.	10 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Tensile strength of the pure adhesive/sealant	10 N/mm² *(1.450 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	11 N/mm² *(1.595 psi)*
Temperature resistance	-30 to +100°C *(-22 to +212°F)* WATT 91°C *(+196°F)*
Overpaintable (liquid paint)	„wet in wet“ or after complete curing
Building material category (DIN 4102)	B 2

Bonding of hard foam panels on aerated concrete

Silicone A

Acetate cross-linking

WEICON Silicone A adhesive and sealant contains no solvents, has acetate-cross-linking properties, is strong, permanently elastic, resistant to ageing and chemicals, temperature resistant up to +200°C *(+392°F)*, extremely elastic (breaking elongation >500%) and can be used universally.

Silicone A adheres very well to steel, aluminium, glass, ceramics, and many additional materials.

WEICON Silicone A can be used in machine and system construction, ventilation and air conditioning systems, in the energy and electrical industry, in exhibition construction and shopfitting and in many additional industrial applications.

310 ml
13001310
white: RAL 9003*

310 ml
13003310
black: RAL 9017*

310 ml
13002310
grey: RAL 7004*

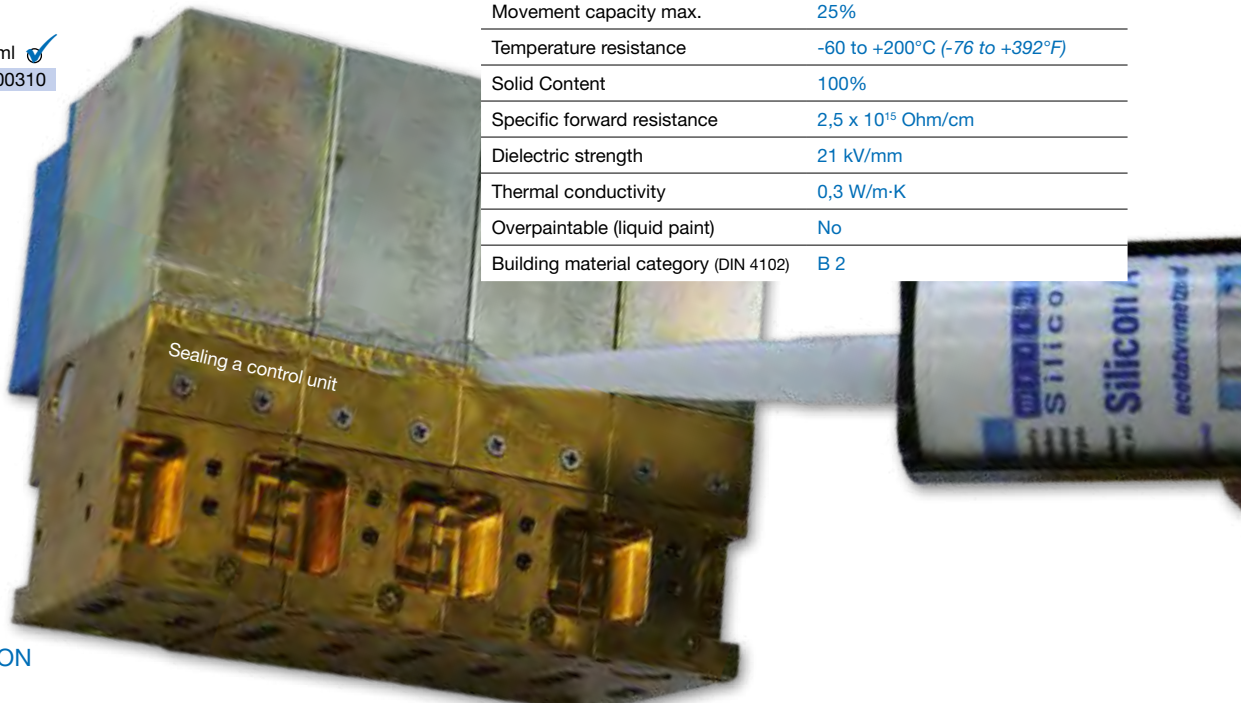
85 ml
13000085
transparent

310 ml
13000310

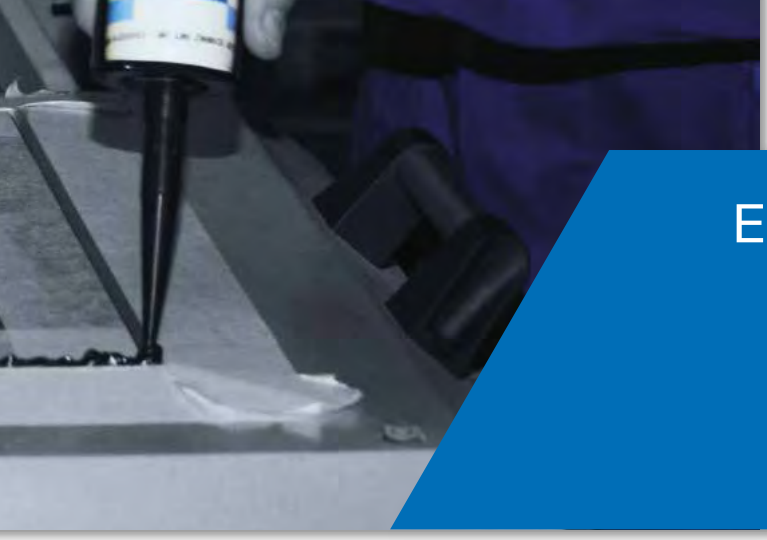
*corresponds approximately to the specified RAL colours

Technical Data

Basis	1 K.-Polysiloxan (Acetat)
Density	1,03 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95 % rel. humidity
Skin-overtime	7 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1 %
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	20
Elongation at break (DIN 53504/ASTM D412)	>500%
Tensile strength of the pure adhesive/sealant	1,3 N/mm² *(189 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	0,8 N/mm² *(116 psi)*
Tear strength (DIN 53515/ASTM D 624)	4,0 N/mm² *(580 psi)*
Movement capacity max.	25%
Temperature resistance	-60 to +200°C *(-76 to +392°F)*
Solid Content	100%
Specific forward resistance	2,5 x 10¹⁵ Ohm/cm
Dielectric strength	21 kV/mm
Thermal conductivity	0,3 W/m·K
Overpaintable (liquid paint)	No
Building material category (DIN 4102)	B 2



Sealing a control unit



Silicones

Technical Data

	Silicone F	Silicone N
Basis	1 K.-Polysiloxane (Acetate)	1 K.-Polysiloxan (Oxime)
Density	1,03 g/cm³	
Viscosity	11.000 mPa·s	pasty
Stability/Run-off (ASTM D 2202)	liquid	1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*	
Cure type	by humidity	
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity	
Skin-overtime	15 min.	7 min.
Cure speed (first 24h)	2-3 mm	
Volume change (DIN 52451)	-9%	-2%
Gap filling up to max.	2 mm	5 mm
Gap width up to max.	---	25 mm
Shelflife (+5 up to +25°C/ *+41 up to +77°F*)	9 months	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	23	25
Elongation at break (DIN 53504/ASTM D412)	370%	800%
Tensile strength of the pure adhesive/sealant	1,8 N/mm² *(261 psi)*	1,3 N/mm² *(189 psi)*
Average tensile shear strength (DIN 53283/ ASTM D 1002)	0,8 N/mm² *(116 psi)*	
Tear strength (DIN 53515/ASTM D 624)	3,6 N/mm² *(261 psi)*	6,0 N/mm² *(870 psi)*
Movement capacity max.	---	25%
Temperature resistance	-50 bis +180°C *(-58 bis +356°F)*	
Solid percentage	90%	100%
Specific forward resistance	7 x 10¹⁴ Ohm/cm	7 x 10¹⁶ Ohm/cm
Dielectric strength	16 kV/mm	15 kV/mm
Thermal conductivity	0,3 W/m·K	
Overpaintable (liquid paint)	No	
Building material category (DIN 4102)	B 2	

Silicone F

Liquid, self-levelling

310 ml
13200310
transparent

WEICON Silicone F casting and sealing compound is liquid, self-levelling, spreadable, free of solvents and has acetate-cross-linking properties. It is resistant to weathering and ageing, temperature resistant up to +180°C *(+356°F)*, extremely elastic (breaking elongation of approx. 370%) and can be used universally.

Silicone F can be specially 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 additional materials.

Silicone F can be used in machine and system construction, in plastic processing, the energy and electrical industry, in exhibition construction and shopfitting and in many additional industrial areas.

Silicone N

Neutral-curing

310 ml
13400310
transparent

WEICON Silicone N adhesive and sealant is free of solvents, is neutrally vulcanizing, strong, permanently elastic, resistant to weathering, ageing and chemicals, temperature resistant up to +180°C *(+356°F)*, extremely elastic (breaking elongation of approx. 800%) and can be used universally.

Silicone N adheres very well to all metals, glass, ceramics, and many additional materials.

WEICON Silicone N can be used in plastic processing, the electrical industry, energy technology, the lighting industry, exhibition construction and shopfitting and in many additional industrial areas.

HT 300

High temperature resistant

TÜV SÜDDEUTSCHLAND

WEICON HT 300 adhesive and sealant is red, high-temperature resistant (+300°C/*+572°F*), free of solvents, strong, and has acetate-cross-linking properties. It is resistant to weathering, ageing and chemicals and is extremely elastic (breaking elongation of approx. 500%).

HT 300 is particularly suitable for heat-exposed bonds and seals and adheres very well to steel, aluminium, glass, ceramics and many additional materials.

HT 300 can be used in industrial furnaces, flue gas systems, heating installations, exhaust gas routing, heating cabinets and in many additional areas.

85 ml	310 ml
13050085	13050310

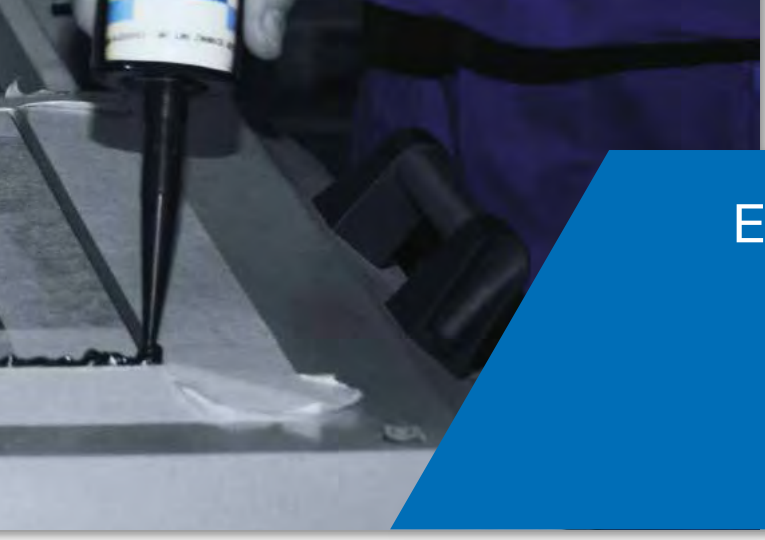
red: RAL 3016*

*corresponds approximately to the specified RAL colours

Technical Data

Basis	1 K.-Polysiloxane (Acetate)
Density	1,28 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	12 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-1%
Gap filling up to max.	5 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	35
Elongation at break (DIN 53504/ASTM D412)	500%
Tensile strength of the pure adhesive/sealant	2,0 N/mm² *(290 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	1,3 N/mm² *(189 psi)*
Tear strength (DIN 53515/ASTM D 624)	6,0 N/mm² *(870 psi)*
Movement capacity max.	15%
Temperature resistance	-60 to +280°C *(-76 to +536°F)* briefly (approx. 2 hours) +300°C *(+572°F)*
Solid percentage	100%
Specific forward resistance	2,5 x 10¹⁵ Ohm/cm
Dielectric strength	21 kV/mm
Thermal conductivity	0,3 W/m·K
Overpaintable (liquid paint)	No
Building material category (DIN 4102)	B 2

Sealing on heating systems



Silicones

Black-Seal

Extremely resistant against oil and grease

WEICON Black-Seal adhesive and sealant is black, high-temperature resistant (+280°C/*+536°F*), free of solvents, strong, oil-resistant, grease-resistant, pressure-resistant, resistant to ageing and extremely elastic (breaking elongation of approx. 500%).

Black-Seal is suitable for bonding and sealing in applications where particularly high oil and grease resistance is required.

WEICON Black-Seal can be used on gearbox, valve and casing covers, oil sumps, water pumps, gears and axles, flanges, tanks and containers, and in many other areas.

black: RAL 9005*

*corresponds approximately to the specified RAL colours

85 ml	200 ml	310 ml
13051085	13051200	13051310
tube	press pack	cartridge

Technical Data

Basis	1 K.-Polysiloxane (Acetate)
Density	1,06 g/cm³
Viscosity	pasty
Stability/Run-off (ASTM D 2202)	>1 mm
Processing temperature	+5 to +35°C *(+41 to +95°F)*
Cure type	by humidity
Curing condition	+5 to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity
Skin-overtime	7 min.
Cure speed (first 24h)	2-3 mm
Volume change (DIN 52451)	-3%
Gap filling up to max.	5 mm
Gap width up to max.	25 mm
Shelflife (+5 up to +25°C/*+41 up to +77°F*)	12 months
Shore-A-Hardness (DIN 53505/ASTM D 2240) ±5	30
Elongation at break (DIN 53504/ASTM D412)	500%
Tensile strength of the pure adhesive/sealant	2,0 N/mm² *(290 psi)*
Average tensile shear strength (DIN 53283/ASTM D 1002)	0,7 N/mm² *(102 psi)*
Tear strength (DIN 53515/ASTM D 624)	4,0 N/mm² *(580 psi)*
Movement capacity max.	15%
Temperature resistance	-50 to +280°C *(-58 to +536°F)* briefly (approx. 2 hours) +300°C *(+572°F)*
Solid percentage	96%
Specific forward resistance	2,5 x 10^{15} Ohm/cm
Dielectric strength	21 kV/mm
Thermal conductivity	0,3 W/m·K
Overpaintable (liquid paint)	No
Building material category (DIN 4102)	B 2

Sealing an engine cover

Technical Data

	WEICON Adhesives and Sealants in non-cured condition						
	Flex 310 M® Classic	**Flex 310 M® Crystal**	**Flex 310 M® HT 200**	**Flex 310 M® Super-Tack**	**Flex 310 M® Stainless-steel**	**Flex+bond®**	
Basis:	One component MS-polymer						
RAL colour*1:	white 9003 grey 7000 black 9004	transparent/ crystal-clear	grey 7000	white 9003 grey 7000	stainless-steel 9023	white 9003 grey 7000 black 9004	transparent/ crystal-clear
Content/Container:	310 ml cartridge	290 ml cartridge				85 ml tube	
Density g/cm³:	1,44	1,06	1,41	1,62	1,06	1,44	1,06
Viscosity:	pasty						
Stability/Run-off (ASTM D 2202) mm:	1	<1	<1	<1	<1	1	<1
Processing temperature:	+5°C to +40°C*2 *(+41 to +104°F)*						
Cure type:	by humidity						
Curing condition:	+5°C to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity						
Skin-over time (minutes):*3	25	10	10	10	10	25	10
Cure speed:*3	2-3 mm in the first 24 hours						
Volume change (DIN 52451) %:*3	-1	-3	---	-2	-3	-1	-3
Gap filling up to max. mm:	5	5	---	10	5	5	5
Gap width up to max. mm:	25	25	---	30	25	25	25
Shelf life in months: +5°C to +25°C *(+41 to +77°F)*	12						
	WEICON Adhesives and Sealants in cured condition						
Shore-A-Hardness (DIN 53505 / ASTM D 2240):	42	40	55	50	45	42	40
Elongation at break (DIN 53504 / ASTM D 412) %:	650	300	400	600	250	650	300
Tensile strength of the pure adhesive/ sealant (DIN 53504/ASTM D 412):	3,3 N/mm² *(480 psi)*	3,0 N/mm² *(440 psi)*	3,2 N/mm² *(460 psi)*	1,9 N/mm² *(280 psi)*	2,4 N/mm² *(350 psi)*	3,3 N/mm² *(480 psi)*	3,0 N/mm² *(440 psi)*
Average tensile shear strength (DIN 53283 / ASTM D 1002):*4	2,1 N/mm² *(300 psi)*	2,0 N/mm² *(290 psi)*	1,8 N/mm² *(260 psi)*	1,5 N/mm² *(250 psi)*	1,8 N/mm² *(260 psi)*	2,1 N/mm² *(300 psi)*	2,0 N/mm² *(290 psi)*
Tear strength (DIN 53515 / ASTM D 624):	20 N/mm² *(2.900 psi)*	19 N/mm² *(2.760 psi)*	21 N/mm² *(3.050 psi)*	13 N/mm² *(1.890 psi)*	10 N/mm² *(1.450 psi)*	20 N/mm² *(2.900 psi)*	19 N/mm² *(2.760 psi)*
Movement capacity max. %:	15	20	---	20	20	15	20
Fungicide:	no						
Temperature resistance:	-40°C to +90°C *(-40 to +194°F)* briefly (approx. 2 hours) to +130°C *(+266°F)*	-40°C to +90°C *(-40 to +194°F)* briefly (approx. 2 hours) to +120°C *(+248°F)*	-40°C to +90°C *(-40 to +194°F)* briefly (approx. 30 Min.) to +200°C *(+392°F)*	-40°C to +90°C *(-40 to +194°F)*	-40°C to +90°C *(-40 to +194°F)*	-40°C to +90°C *(-40 to +194°F)*	-40°C to +90°C *(-40 to +194°F)*
Overpaintable:*5	Only „wet in wet," within 3 hrs. at the latest after material application with suitable paint coating systems (except alkyd resin paints)						
Building material category (DIN 4102):	B 2						
Possible primers:	see Primer selection table on Page 171						

*1 Corresponds approximately to the specified RAL colours.
*2 For easier processing, the cartridges, tubes, etc. should be heated to room temperature (+20°/+68°F) before use at low temperatures.
*3 Normal climate +23°C *(+73°F)* and 50% relative humidity in accordance with DIN 50014.
*4 Material combination aluminium/aluminium, cleaned and degreased with Cleaner S, 1 mm layer thickness, 10 mm per minute tearing speed, fast-bond beech/beech, without pretreatment, 1 mm layer thickness, 5 mm per minute tearing speed.
*5 The WEICON one-component adhesives and sealants listed above are free of substances that hinder the coating of lacquer, e.g. silicone. Thanks to the special composition, these can be painted over with suitable paint coating systems (no alkyd resin paints). However, to check the compatibility, suitability must always be determined individually in preliminary tests under the respective real-life conditions. This is essential due to the different compositions and the diversity of the substrates. The curing of the adhesives and sealants is only slightly delayed by a coating of paint.

Elastic Adhesives and Sealants

Technical Data

	WEICON Adhesives and Sealants in non-cured condition				
	Aqua-Flex	**Solar-Flex®**	**Speed-Flex®**	**Flex 310 PU**	**Fast-Bond**
Basis:	One-component MS-polymer			One-component polyurethane	
RAL-Colour*1:	white 9003 grey 7000 black 9004	white 9003 grey 7000	white 9003 grey 7000	white 9003 grey 7001 black 9005	beige 9010
Content/Container:	310 ml cartridge	290 ml cartridge	310 ml cartridge	300 ml cartridge	310 ml cartridge
Density g/cm³:	1,44	1,62	1,60	1,17	1,50
Viscosity:	pasty		extremely pasty	pasty	
Stability/Run-off (ASTM D 2202) mm:	1	<1	<1	1	>1
Processing temperature:	+5°C to +40°C*2 *(+41 to +104°F)*				
Cure type:	by humidity				
Curing condition:	+5°C to +40°C *(+41 to +104°F)* and 30% to 95% rel. humidity, Aqua-Flex also hardens under water			+5°C to +35°C *(+41 to +95°F)* and 40% to 70% rel. humidity	see Aqua-, Solar and Speed-Flex
Skin formation (minutes):*3	25	10	10	45	3
Cure speed:*3	2-3 mm in the first 24 hours				
Volume change (DIN 52451) %:*3	-1	-2	-1	-6	Increase
Gap filling up to max. mm:	5	10	5	5	10
Gap width up to max. mm:	25	30	5	25	---
Shelf life in months: +5°C to +25°C *(+41 to +77°F)*	12			9	12
	WEICON Adhesives and Sealants in cured condition				
Shore-A-Hardness (DIN 53505 / ASTM D 2240):	42	50	58	45	---
Elongation at break (DIN 53504 / ASTM D 412) %:	650	600	230	450	---
Tensile strength of the pure adhesive/sealant (DIN 53504 / ASTM D 412):	3,3 N/mm² *(480 psi)*	1,9 N/mm² *(280 psi)*	2,2 N/mm² *(320 psi)*	2,0 N/mm² *(290 psi)*	10 N/mm² *(1.450 psi)*
Average tensile shear strength (DIN 53283 / ASTM D 1002):*4	2,1 N/mm² *(300 psi)*	1,5 N/mm² *(250 psi)*	1,3 N/mm² *(190 psi)*	1,6 N/mm² *(230 psi)*	11 N/mm² *(1.600 psi)*
Tear strength (DIN 53515 / ASTM D 624):	20 N/mm² *(2.900 psi)*	13 N/mm² *(1.890 psi)*	10 N/mm² *(1.450 psi)*	9 N/mm² *(1.310 psi)*	---
Movement capacity max. %:	15	20	15	10	---
Fungicide:	no				
Temperature resistance:	-40°C to +90°C *(-40 to +194°F)* briefly (approx. 2 hours) to +130°C *(+266°F)*	-40°C to +90°C *(-40 to +194°F)*	-40°C to +80°C *(-40 to +176°F)* briefly (approx. 2 hours) to +120°C *(+248°F)*	-40°C to +90°C *(-40 to +194°F)* briefly (approx. 2 hours) to +120°C *(+248°F)*	-30°C to +100°C *(-22 to +212°F)* WATT 91
Overpaintable:*5	Only „wet in wet," within 3 hours at the latest after material application with suitable paint coating systems (except alkyd resin paints)			Wet in wet or after complete curing	
Building material category (DIN 4102):	B 2				
Possible primers:	see Primer selection table on Page 171				---

Technical Data

	WEICON Adhesives and Sealants in non-cured condition					
	Silicone A		Silicone N	Silicone F	HT 300	Black-Seal
Basis:	One-component acetate		One-comp. oxime	One-component acetate		
RAL-Colour*1	transparent	white 9003 dusty grey 7037 black 9017	transparent opaque		red 3016	black 9005
Content/Container:	310 ml cartridge					
	/					200 ml press pack can
	85 ml tube	/			85 ml tube	
Density (g/cm³):	1,03	1,25	1,03	1,03	1,28	1,06
Viscosity:	pasty		pasty	11.000 mPa·s	pasty	pasty
Stability/Run-off (ASTM D 2202) mm:	1		1	liquid	1	>1
Processing temperature:	+5°C to +35°C*2 *(+41 to +95°F)*					
Cure type:	by humidity					
Curing condition:	+5°C to +40°C *(+41 to +104°F)* and 30% to 95% re. humidity					
Skin-over time (minutes):*3	7		7	15	12	7
Cure speed:*3	2-3 mm in the first 24 hours					
Volume change (DIN 52451) %:*3	-1		-2	-9	-1	-3
Gap filling up to max. mm:	5		5	2	5	5
Gap width up to max. mm:	25					
Shelf life in months: +5°C to +25°C *(+41 to +77°F)*	12					
	WEICON Adhesives and Sealants in cured condition					
Shore-A-Hardness (DIN 53505 / ASTM D 2240):	20		25	23	35	30
Elongation at break (DIN 53504 / ASTM D 412) %:	>500		800	370	500	500
Tensile strength of the pure adhesive/sealant (DIN 53504 / ASTM D 412) N/mm²:	1,3 N/mm² *(190 psi)*		1,3 N/mm² *(190 psi)*	1,8 N/mm² *(260 psi)*	2,0 N/mm² *(290 psi)*	2,0 N/mm² *(290 psi)*
Average tensile shear strength (DIN 53283 / ASTM D 1002) :*4	0,8 N/mm² *(120 psi)*		0,8 N/mm² *(120 psi)*	0,8 N/mm² *(120 psi)*	1,3 N/mm² *(190 psi)*	0,7 N/mm² *(100 psi)*
Tear strength (DIN 53515 / ASTM D 624):	4,0 N/mm² *(520 psi)*		6,0 N/mm² *(870 psi)*	3,6 N/mm² *(510 psi)*	6,0 N/mm² *(870 psi)*	4,0 N/mm² *(520 psi)*
Movement capacity max. %:	25		25	/	15	15
Temperature resistance:	-60°C to +200°C *(-76 to +392°F)*		-40°C to +180°C *(-40 to +356°F)*	-50°C to +180°C *(-58 to +392°F)*	-60°C to +280°C *(-76 to +536°F)* briefly (approx. 2 hours) +300°C *(+572°F)*	-50°C to +280°C *(-58 to +536°F)* briefly (approx. 2 hours) +300°C *(+572°F)*
Solids content in %:	100		100	90	100	96
Specific forward resistance:	2,5 x 10^{15} Ω/cm		7 x 10^{16} Ω/cm	7 x 10^{14} Ω/cm	2,5 x 10^{15} Ω/cm	2,5 x 10^{15} Ω/cm
Dielectric strength:	21 kV/mm		15 kV/mm	16 kV/mm	21 kV/mm	21 kV/mm
Thermal conductivity:	0,3 W/m·K		0,3 W/m·K	0,3 W/m·K	0,3 W/m·K	0,3 W/m·K
Overpaintable:	cannot be painted over					
Building material category (DIN 4102):	B 2					

*1 Corresponds approximately to the specified RAL colours. *2 For easier processing, the cartridges should be heated to room temperature (+20°/+68°F) before use at low temperatures.
*3 Normal climate +23°C *(+73°F)* and 50% relative humidity in accordance with DIN 50014. *4 material combination aluminium/aluminium, cleaned and degreased with Cleaner S, 1 mm layer thickness, 10 mm per minute tearing speed.

Elastic Adhesives and Sealants

Information on surface preparation/pretreatment

Material		Basis MS polymers (POP)	Basis polyurethane (PUR)
ABS		Surface Cleaner + Primer K 200	Surface Cleaner + Primer K 200
Aluminium	bare	Surface Cleaner + Primer M 100	Surface Cleaner + roughening up + Primer M 100
	chromated	Surface Cleaner	Surface Cleaner
	anodised	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	powder-coated	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	primed	Surface Cleaner	Surface Cleaner
	painted	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
EPDM		Surface Cleaner + Primer K 200	No adhesion
GFRP (polyester, epoxy)	smooth/rough side	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	web goods	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	hand laminate	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
Glass	untreated, clear	Surface Cleaner + Primer M 100**	Surface Cleaner + Primer M 100**
	ceramic-coated	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
Wood	phenol-coated	No adhesion	Surface Cleaner + roughening up + Primer M 100
	untreated	Clean with humid cloth + Primer S 300	Clean with humid cloth + Primer S 300
PA (polyamide)		Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
PIR hard foam (polyisocyanurate)		Surface Cleaner	Surface Cleaner
PMMA (Plexiglas)		Surface Cleaner + Primer M 100*	Surface Cleaner + Primer M 100*
Polywood		Roughen up finely + Surface Cleaner	Roughen up finely + Surface Cleaner
PP/PE		Surface Cleaner + Primer P 400*	Surface Cleaner + Primer P 400*
PS	hard foam	Surface Cleaner	Surface Cleaner
	panels, impact-resistant	Surface Cleaner + Primer M 100*	No adhesion
PUR hard foam (polyurethane)		Surface Cleaner	Surface Cleaner
PVC	panels	Surface Cleaner + Primer K 200	Surface Cleaner + Primer K 200
	hard foam	Surface Cleaner	Surface Cleaner
Steel	bare	Surface Cleaner + Primer K 200	Surface Cleaner + Primer K 200
	chromated	Surface Cleaner	Surface Cleaner
	film-coated	Surface Cleaner + Primer M 100	none Adhäsion
	primed	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	painted	Surface Cleaner + Primer M 100	Surface Cleaner + Primer M 100
	powder-coated	Surface Cleaner + Primer K 200	Surface Cleaner + Primer M 100
	VA (stainless steel)	Surface Cleaner + roughening up + Primer M 100	Surface Cleaner + roughening up + Primer M 100
	galvanised	Surface Cleaner + roughening up + Primer M 100	Surface Cleaner + roughening up + Primer M 100

* Preliminary tests are required ** Protect against UV back radiation

Primer M 100: For pretreating non-absorbent surfaces, e.g. metals, plastics, painted surfaces, enamels, ceramic and coated glass.
Primer K 200: For pretreating non-absorbent and painted plastic surfaces and elastomers, e.g. EPDM.
Primer S 300: For pretreating porous and absorbent surfaces.
Primer P 400: For pretreating polyolefins, e.g. TPE, PE, PP and difficult-to-bond elastomers.

Chemical resistance of WEICON Adhesives and Sealants after curing

	Flex 310 M® Classic	Flex 310 M® Crystal	Flex 310 M® HT 200	Flex 310 M® Super-Tack	Flex 310 M® Stainless-steel	Flex 310 M® 2 K	Flex+bond®	Speed-Flex®	Aqua-Flex	Solar-Flex®	Flex 310 PU	Fast-Bond	Silicone A	Silicone N	Silicone F	HT 300	Black-Seal
2-propanol	-	-	-	-	-	-	-	-	-	-	o	o	+	o	o	+	+
Acetic acid >5%	+	-	+	+	-	+	+	+	+	+	-	-	+	o	+	+	+
Acetone	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Alcohol	o	o	o	o	o	o	o	o	o	o	o	o	+	+	+	+	+
Ammonia 10 %	+	o	+	+	o	+	+	+	+	+	o	o	+	+	+	+	+
Antifreeze	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Caustic potash solution 20%	o	o	o	o	o	o	o	o	o	o	+	+	-	-	-	-	-
Citric acid 10%	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Concentrated formic acid	-	-	-	-	-	-	-	-	-	-	-	-	+	-	o	+	+
Concentrated phosphoric acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concentrated silicon oil	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cooling lubricant, water-dilutable	+	o	+	+	o	+	+	+	+	+	+	+	+	+	+	+	+
Diesel/heating oil	-	-	-	-	-	-	-	-	-	-	-	-	o	-	-	o	+
Edible oil/vegetable oil	o	o	o	o	o	o	o	o	o	o	o	o	+	+	+	+	+
Ethanol	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Freon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	o
Gear oil	-	-	-	-	-	-	-	-	-	-	-	-	o	-	-	o	+
Glycerine (glycol)	+	o	+	+	o	+	+	+	+	+	+	+	+	+	+	+	+
Glycol ether	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Hydraulic oil	o	-	o	o	-	-	o	o	o	o	o	o	+	-	o	+	+
Hydrochloric acid 5%	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Hydrogen peroxide 3%	+	-	+	+	-	-	+	+	+	+	-	-	+	+	+	+	+
Ketones	-	-	-	-	-	-	-	-	-	-	-	-	o	o	o	o	o
Lyes, diluted	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Methanol	-	-	-	-	-	-	-	-	-	-	-	-	+	-	o	+	+
Methyl ethyl ketone	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Motor oil, mineral and synthetic, +140°C *(+284°F)*	-	-	-	-	-	-	-	-	-	-	-	-	o	-	-	o	+
Motor oil, mineral and synthetic	-	-	-	-	-	-	-	-	-	-	-	-	+	-	o	+	+
Naphtha	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Nitric acid 5%	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Paint thinner	-	-	-	-	-	-	-	-	-	-	-	-	o	-	-	+	+
Paraffin oil	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Petrol (92 to 100 octane)	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Phosphoric acid 5%	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Salt water/seawater	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sodium hydroxide solution 20%	-	-	-	-	-	-	-	-	-	-	o	o	+	o	o	+	+
Sulphuric acid 5%	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+
Toluene	-	-	-	-	-	-	-	-	-	-	-	-	+	o	+	+	+
Water	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Water, +90°C *(+194°F)*	+	-	+	+	-	+	+	+	+	+	-	-	+	+	+	+	+
Xyleme	-	-	-	-	-	-	-	-	-	-	-	-	+	o	o	+	+

+ = resistant 0 = limited resistance - = not resistant

Elastic Adhesives and Sealants

Formula for calculating the consumption quantity

Conversions

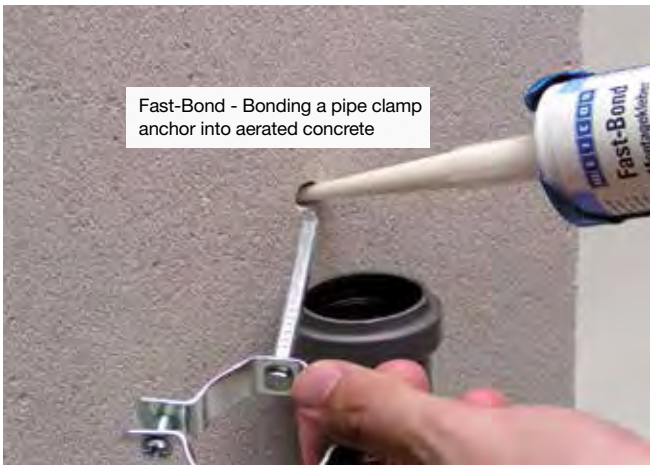
(°C x 1.8) +32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm x 5.71 = pli
N/mm² x 145 = psi
MPa x 145 = psi
MPa x 0.145 = KSI
mPa·s = cP
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
kg x 2.2046 = lb

Joint depth / Joint width	5 mm		6 mm		8 mm		10 mm		12 mm	
	ml/m	m/Kart.	ml/m	m/Kart.	ml/m	m/Kart.	ml/m	m/Kart.	ml/m	m/Kart.
5 mm	25	12,4	30	10,3						
6 mm	30	10,3	36	8,6						
8 mm	40	7,75	48	6,5	64	4,8				
10 mm	50	6,2	60	5,2	80	3,9	100	3,1		
12 mm	60	5,2	72	4,3	96	3,2	119	2,6		
15 mm	75	4,1	90	3,4	120	2,6	148	2,1	182	1,7
18 mm			108	2,9	144	2,2	182	1,7	221	1,4
20 mm					160	1,9	194	1,6	240	1,3
25 mm							258	1,2	300	1,0

Speed-Flex - Signs on a filling plant for gas

Speed-Flex - Automated application during the production of doors for refrigerators

Flex 310 M Classic - Bonding/sealing in the model construction sector



Fast-Bond - Bonding a pipe clamp anchor into aerated concrete

WEICON GMK

GMK products are various contact adhesives for bonding rubber and metal.

GMK 2410

permanently elastic and resistant to humidity

GMK 2410 is an adhesive based on polychloroprene (CR) for the high-strength, full-surface and flexible bonding of

rubber to rubber and **rubber to metal.**

WEICON GMK 2410 also bonds cellular rubber (e. g. neoprene), leather, felt, insulating material, textiles, wood, and many plastics.

GMK 2410 is not suitable for materials such as expanded polystyrene, polyethylene, polypropylene, flexible PVC foam, and artificial PVC leather. The product can be used for many industrial applications.

185 g	300 g	350 g	700 g
16100185	16100300	16100350	16100700
tube	can	brush top can	can

5 kg	25 kg
16100905	16100925
bucket	bucket

GMK 2510 New

strong, permanently elastic, temperature-resistant

GMK 2510 is a 2-component adhesive based on polychloroprene for full-surface and permanently elastic bonding of parts which are continuously exposed to dynamic loads.

The advantage compared to 1-component contact adhesives is the considerably better adhesion and the improved temperature resistance.

GMK 2510 bonds rubber, metal, textiles, leather, sponge rubber (neoprene), CSM (Hypalon), insulating materials, PU materials with an adhesive coating, wood and many plastics. After curing the bonding is moisture-proof.

WEICON GMK 2510 is not suitable for materials such as polystyrene foam, polyethylene, polypropylene parts, PVC soft foam and PVC imitation leather.

690 g
16200690
Working package
(consisting of 650 g adhesive and 40 g activator)

Rubber Metal Adhesive

GMK 2410
GMK 2510

Surface pre-treatment

The parts to be bonded must be clean, dry and free of dust or grease (WEICON Surface Cleaner, see page 190). Roughening the surfaces increases the bonding power efficiently.

Application

Stir the product well before use (for GMK 2510 only the adhesive) and then evenly apply a thin layer over the entire surface to be bonded with a paint brush or spatula (smooth or fine-toothed). Two or three thin layers may be required depending on the type of material and application. Depending on the layer thickness, ambient temperature and air humidity, allow the coated surfaces to evaporate for 5 - 15 minutes.

With absorbent surfaces (e.g. felt), an additional adhesive layer should be applied after evaporating. As soon as the surfaces are dry but still feel a bit sticky (finger test), the parts must be joined under brief, strong pressure (e.g. with a roller or hammer). If the evaporation time is exceeded (over-drying), the adhesive must be applied again. Non-cured, exceeding adhesive can be removed with WEICON Surface Cleaner (page 190).

Mixing process for GMK 2510

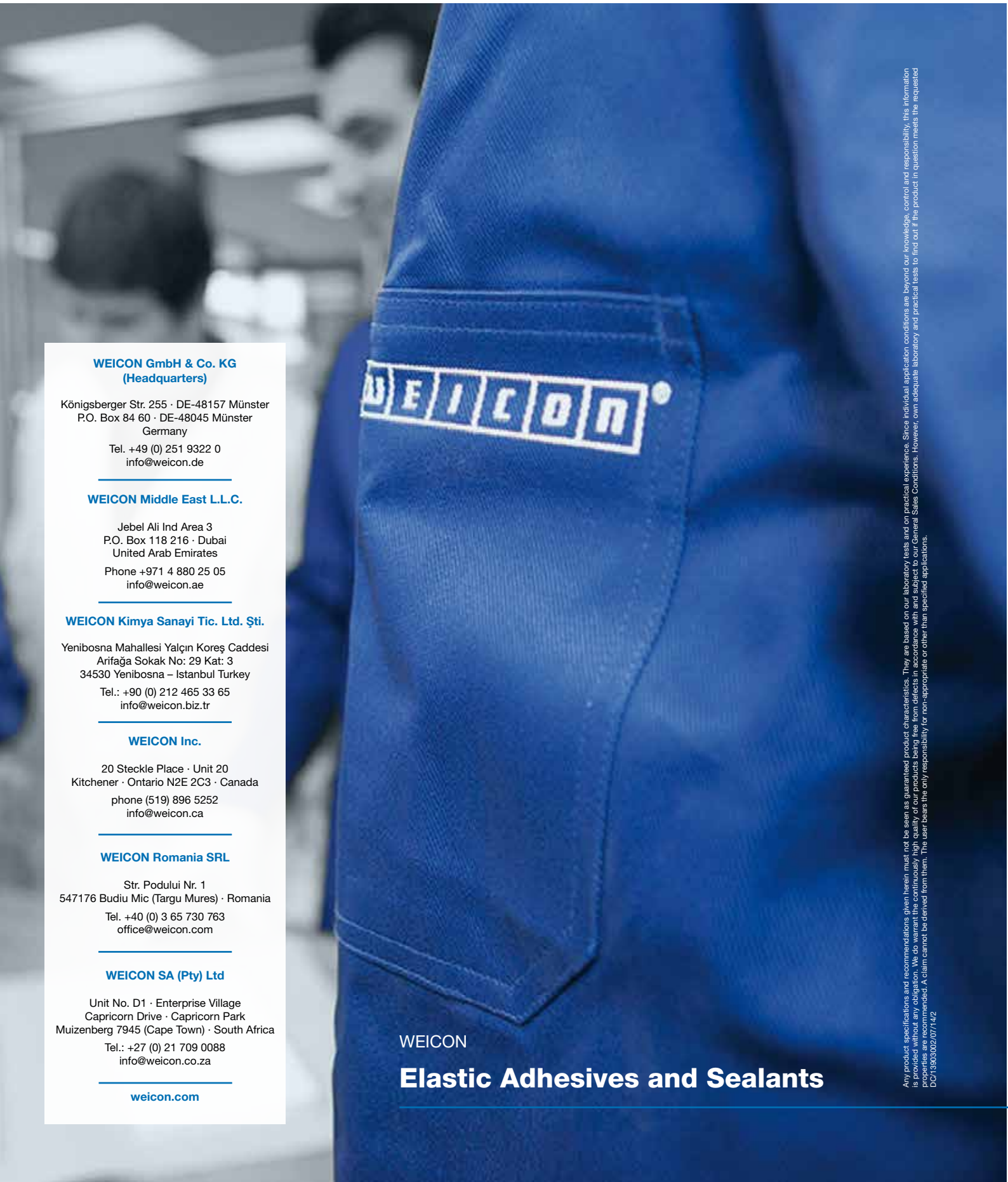
Mix the adhesive and activator together thoroughly and bubble-free for four minutes with the application spatula or mechanical mixers at low speed (max. 500 rpm) (mixing ratio approx. 100:7) to obtain a homogeneous mixture. Only prepare the quantity which can be applied within the evaporation time.

Medium tensile shear strength	**GMK 2410**	**GMK 2510**
Galvanised steel / EPDM:	0,16 N/mm² (16,0 N/cm² *) *23 psi*	0,60 N/mm² (60,0 N/cm² *) *87 psi*
Galvanised steel / galvanised steel:	1,60 N/mm² (160,0 N/cm² *) *232 psi*	3,00 N/mm² (300,0 N/cm² *) *435 psi*
Galvanised steel / SBR:	0,54 N/mm² (54,0 N/cm² *) *78 psi*	0,50 N/mm² (50,0 N/cm² *) *72 psi*
Galvanised steel / NBR:	0,57 N/mm² (57,0 N/cm² *) *83 psi*	0,49 N/mm² (49,0 N/cm² *) *71 psi*

* Tensile shear test in accordance with DIN 53281-83

Technical Data

	GMK 2410	GMK 2510
Basis:	Polychloroprene (CR)	
Density:	0,93 g/cm³	0,85 g/cm³
Viscosity:	approx. 2.400 mPa·s	1.500 mPa.s
Mixing ratio:	---	100:7
Colour:	yellowish-brown	black
Consumption:	250 – 350 g/m²	150 g/m²
Evaporation time:	5 – 10 minutes	5 – 15 minutes
Final strength:	approx. 24 hours	
Temperature range:	from -40°C to +80°C *(-40 to 176°F)*	from -40°C to +80°C *(-40 to 176°F)*, short-term (1 hour) up to +130°C *(+266°F)*
Processing temperature:	+15°C to +35 °C *(+59 to 95°F)*	+15°C to +35°C (+59 to 95°F); the adhesive gels under +5°C (+41°F), however is ready to use again by carefully heating it to room temperature!
Storage stability:	12 months when unopened	
Storage:	at room temperature (+15°C to +25°C/*+59 to 77°F*) dry, in densely closed packaging	



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WEICON

Elastic Adhesives and Sealants

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