

Elastic adhesives and sealants

MS-Polymers

Flex 310 M HT 220+



High temperature resistant up to +220 °C

Fast-curing, elastic, high temperature resistant 1-component SMP-based adhesive and sealant for tolerance-bridging joints. Viscoplastic, very fast strength build-up, good initial adhesion, moisture-curing, neutral cross-linking. In the cured state, Flex 310 M HT 220+ can be loaded once for approx. 30 minutes with temperatures up to +220 °C and permanently up to +90 °C. Adheres to a wide variety of surfaces. Free from solvents, halogen, silicone and isocyanate. High resistance to weathering and ageing. Good resistance to water, aliphatic solvents, oils, greases, diluted inorganic acids and alkalis.

The high temperature resistance makes it possible to bond and seal components, which will be thermal-coated (powdercoated) afterwards.

Flex 310 M HT 220+ can be used in metal construction, tank and apparatus engineering, in ventilation and air conditioning systems, in car body, container, wagon and vehicle construction.

Technical Data

Base		1-C. MS polymer
Colour		grey
Cure type		moisture-curing
Texture		pasty
Stability/run-off		<1 mm
Density	(+20°C) DIN 51757	1,50 g/cm ³
Curing condition		from +5 °C to +40 °C and 30% to 95% rel. air humidity
Processing temperature		+5 °C to +40 °C
Curing speed	in the first 24 h	2-3 mm
Skin-over time		10 min.
Tensile strength	DIN EN ISO 527 / 5A	3,4 N/mm²
Elongation at break (tensile)	DIN EN ISO 527 / 5A	160 %
Medium lap shear strength (D 1002)	DIN EN 1465/ASTM D	1,6 N/mm²
Hardness (Shore A)	DIN ISO 7619	57
Temperature resistance		-40 °C to +90 °C (120 min. +200 °C / 30 min. +220 °C)
Minimum shelf life	at room temperature	12 mon.

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.

Processing

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).

Ageing

The test specimens were artificially aged according to DIN ISO 21194, Annex A, to assess their long-term durability.

After artificial ageing, Flex 310 M HT220+ with Primer K 200 or Activating Cleaner achieved grade 2 in the bead peel test on aluminium.

Grade 2 means: 75 % to 95 % cohesive failure.

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 requested properties are recommended. A claim cannot be derived from them.

WEICON®

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After artificial ageing, Flex 310 M HT220+ with Primer K 200 or Activating Cleaner achieved grade 2 in the bead peel test on stainless steel (V2A).

Grade 2 means: 75 % to 95 % cohesive failure.

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.

Accessories

10025241	V-Joint Nozzle, 1 PCE
10033114	Compressed Air Cartridge Gun, 1 PCE
10020751	Cartridge Gun Special, 1 PCE
10000441	Cartridge Gun, 1 PCE

Available sizes

10067865 Flex 310 M HT 220+, 290 ml, grey

Conversion table

Nm x 8.851 = lb⋅in
Nm x 0.738 = lb⋅ft
Nm x 141.62 = oz∙in
mPa⋅s = cP
$N/cm \times 0.571 = lb/in$
$kV/mm \times 25.4 = V/mil$



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