

Flex 310 M[®] Crystal MS-Polymer



Crystal-clear after curing | ISEGA-certified

WEICON Flex 310 M Crystal is transparent, strong, paintable (wet-on-wet), sandable, has an outstanding resistance to ageing and good resistance to UV rays. It contains no silicone, isocyanate, halogens or solvents. It has an ISEGA certificate and can be used as an adhesive in the food technology. Flex 310 M Crystal is an elastic adhesive suitable for bonding glass, PC* 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. It 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 for tension-free bonding)

Elastic adhesives and sealants

MS-Polymers

Technical Data

| | | |
|---|---|---------------------|
| Base | 1 C. polyoxypropylene | |
| Colour | transparent | |
| Texture | pasty | |
| Can be painted | only "wet into the wet" within 3 h at the latest | |
| Cure type | moisture-curing | |
| Stability/run-off | ASTM D 2202 | 1.0 mm |
| Density | 1,06 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. | |
| Gap bridging up to max. | 5 mm | |
| Max. sealing joint width | 25 mm | |
| Tensile strength | ISO 37 / S3A | 3 N/mm ² |
| Tensile strength of the pure adhesive and sealant | ISO 37 | 3 N/mm ² |
| Elongation at break (tensile) | DIN 53504/ASTM D412 | 300 % |
| Medium lap shear strength (DIN EN 1465/ASTM D 1002) | 2 N/mm ² | |
| Tear resistance | DIN 53515 / ASTM D 1002 | 19 kN/m |
| Volume change | DIN 52451 | -1 % |
| Hardness (Shore A) | DIN ISO 7619 | 40±5 |
| Temperature resistance | -40 °C to briefly +90 °C (approx. 2 h) +120 °C | |
| Resistance | 1,2 x 10 ¹² Ω·m | |
| Specific resistance | 1,2 x 10 ¹² Ω·cm | |
| Building material class | DIN 4102 | B 2 |
| Minimum shelf life | at room temperature | 12 mon. |

Approvals / Guidelines

| | |
|-----------|--------------------------|
| ISSA Code | 75.509.22 |
| IMPA Code | 812910 |
| MIL-Spec | complies with MIL-A-101A |

Surface Pre-Treatment

Surfaces must be clean and free of grease. Many surface soiling, 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

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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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 Crystal with Primer K 200 achieved grade 1 in the bead peel test on aluminium.

Grade 1 means: more than 95% cohesive failure and less than 5% adhesive failure in the form of the adhesive peeling off the contact surface.

After artificial ageing, Flex 310 M Crystal with Primer K 200 achieved grade 5 in the bead peel test on stainless steel (V2A).

Grade 5 means: less than 5% 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
- 10101992 Clip Nozzle Green Tube, 1 PCE, transparent

Available sizes

- 10057247 Flex 310 M[®] Crystal MS-Polymer, 200 ml, transparent
- 10104017 Flex 310 M[®] Crystal MS-Polymer, 280 ml (Green Tube), transparent
- 10104055 Flex 310 M[®] Crystal MS-Polymer, 280 Set, transparent
- 10104246 Flex 310 M[®] Crystal MS-Polymer, 280 ml (plastic bag), transparent
- 10104970 Flex 310 M[®] Crystal MS-Polymer, 280 ml (plastic bag), transparent

Conversion table

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{mm}/25.4 = \text{inch}$
 $\mu\text{m}/25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N}/\text{mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$

$\text{Nm} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{Nm} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{Nm} \times 141.62 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$
 $\text{N}/\text{cm} \times 0.571 = \text{lb}/\text{in}$
 $\text{kV}/\text{mm} \times 25.4 = \text{V}/\text{mil}$

To the product detail page:



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