

Plastic-Bond



Excellent adhesion to plastics | high strength | shock- and impact-resistant

WEICON Plastic-Bond is a solvent-free structural adhesive with very good adhesion to plastics, aluminum, steel and many other materials. The adhesive is suitable for static as well as dynamic loads, has high impact and peel strength and a maximum gap-filling capacity of 5 mm.

Plastic-Bond is particularly convenient for structural bondings if high-strength connections are required. The adhesive is highly viscous and is therefore suitable for processing on vertical surfaces.

The structural adhesive is universally applicable and can be used, for example, in plastics technology, in metal construction, in car body and vehicle construction, in mechanical engineering, in electrical engineering, in wood processing, or in trade show and exhibition construction.

Characteristics

| | | |
|--------------------|---------------------|---------|
| Base | methyl methacrylate | |
| Texture | viscous | |
| Colour | off-white, milky | |
| Minimum shelf life | at room temperature | 12 mon. |

Processing

| | | |
|--------------------------|---------------------|--|
| Processing temperature | +10°C to +40°C | |
| Cure temperature | +18 °C | |
| Mixing ratio by weight | 1:1 | |
| Viscosity of the mixture | 40.000-60.000 mPa·s | |
| Density of the mixture | 0,98-1,02 g/cm³ | |
| Gap bridging up to max. | 5 mm | |

Curing

| | | |
|------------------------|------------------|---------|
| Pot life | at 20 °C | 15 min. |
| Handling strength | (35 % strength) | 40 min. |
| Working strength after | (50 % strength) | 60 min. |
| Final strength | (100 % strength) | 12 h |

Mechanical properties after curing

| | | |
|---|--|----------|
| Lap shear strength material thickn. 1,5mm DIN EN 1465 | | |
| Steel 1.0338 sandblasted | | 23 N/mm² |
| Stainless steel V2A sandblasted | | 22 N/mm² |
| Aluminium sandblasted | | 20 N/mm² |
| PVC-rigid roughened | | 12 N/mm² |
| CFRP | | 22 N/mm² |
| ABS | | 7 N/mm² |
| PC (polycarbonate) | | 11 N/mm² |
| GFRP | | 21 N/mm² |
| PMMA | | 9 N/mm² |
| Polyamide 6.6 | | 1 N/mm² |

Thermal parameters

| | |
|------------------------|-----------------|
| Temperature resistance | -55°C to +125°C |
|------------------------|-----------------|

Electrical parameters

| | | |
|---------------------|-----------------------|----------|
| Dielectric strength | DIN EN 60243-1 (20°C) | 21 kV/mm |
|---------------------|-----------------------|----------|

Approvals / Guidelines

| | | |
|-----------|---------------|---------------|
| IMPA Code | 812993 | |
| MIL-Spec | complies with | MIL-PRF-23400 |

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.

Surface Pre-Treatment

Clean and dry bonding surfaces are essential for flawless adhesive bonding (e.g. cleaning and degreasing with WEICON Surface Cleaner). Best results are achieved when the adhesive surfaces are mechanically roughened. The adhesive is applied to just one side.

Application

Plastic-Bond can be processed straight from the double cartridge by means of the included static mixer. Dismiss the first 5 cm of the adhesive bead. The adhesive is applied to just one side. The specified pot life refers to a material batch of 10 ml at room temperature. Larger batch quantities will result in faster curing. Higher temperatures also reduce the pot life and curing time. (General rule: every increase by +10 °C above room temperature results in a decrease of the pot life and curing time by half). Temperatures below +16 °C increase the pot life and curing time significantly. From approx. +5°C and below, no reaction takes place.

Storage

WEICON acrylic structural adhesives should be stored in a dry place at a constant room temperature. Unopened containers can be stored at temperatures from +18 °C to +25 °C. Protect

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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Plastic-Bond

from direct sunlight. Storage in a refrigerated environment increases the shelf life.

Scope of delivery

Adhesive | Quadro Mixing Nozzle A

Accessories

10005236 Quadro Mixing Nozzle A, 1 PCE, blue
10068261 Dosing Tip, 1 PCE

Conversion table

| | |
|---|---|
| $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$ | $\text{Nm} \times 8.851 = \text{lb}\cdot\text{in}$ |
| $\text{mm}/25.4 = \text{inch}$ | $\text{Nm} \times 0.738 = \text{lb}\cdot\text{ft}$ |
| $\mu\text{m}/25.4 = \text{mil}$ | $\text{Nm} \times 141.62 = \text{oz}\cdot\text{in}$ |
| $\text{N} \times 0.225 = \text{lb}$ | $\text{mPa}\cdot\text{s} = \text{cP}$ |
| $\text{N}/\text{mm}^2 \times 145 = \text{psi}$ | $\text{N}/\text{cm} \times 0.571 = \text{lb}/\text{in}$ |
| $\text{MPa} \times 145 = \text{psi}$ | $\text{kV}/\text{mm} \times 25.4 = \text{V}/\text{mil}$ |

Available sizes

10018558 Plastic-Bond, 24 ml, off-white, milky
10058780 Plastic-Bond, 24 ml (Set), off-white, milky

To the product detail
page:



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