

Easy-Mix PU-90



high strength
extremely fast-curing
highly viscous

WEICON Easy-Mix PU-90 structural adhesive is high-strength, extremely fast-curing, highly viscous, and can be sanded and painted over after approx. 30 minutes. It is weather resistant, resistant to chemicals and temperature resistant from -55°C to +125°C (-67 to +257°F) and has a very short pot life of around 90 seconds.

WEICON PU-90 can be used to bind numerous materials such as composite materials, plastics, polyurethane, epoxies, polyester, metals, wood and ceramics to themselves and among each other with high tensile, shear and peel strength.

PU-90 can be used in plastic technology, machine construction, model and mould making, metal construction, ship and boat building, carriage and vehicle construction, trade show and exhibition construction and in many other applications.

Technical data

Basis	Polyurethane
Mixing ratio Resin / Hardener	1:1
Colour after curing	black
Density of the mixture	1,30 - 1,35 g/cm ³
Pot life at +20 °C	1,5 min.
Handling strength (35%) after	5 min.
Mechanical loads (50% strength) after	10 min.
Final strength (100%) after	12 hours
Adhesive gap bridging	0,1 - 4,0 mm
Average strength (+20°C) acc. to DIN 1465	
on GRP	17 N/mm ²
on PVC	2,2 N/mm ²
on Aluminium	13 N/mm ²
on Steel bright	19 N/mm ²
on Stainless steel	17 N/mm ²
on PMMA	3 N/mm ²
on Beech	1,8 N/mm ²
on MDF	5 N/mm ²
on Mineral Cast	8 N/mm ²
Average E-module (+20 °C)	650 - 750 N/mm ²
Shore hardness D DIN EN ISO 868	66
Tensile strength ISO 527 max.	21 N/mm ²

Tensile Extension ISO 527 max.	35 %
Temperature resistance	-55 up to +125 °C
Thermoforming resistance	+65 °C
TGA decomposition temperature (Onset temp.)	+330 °C

Pretreatment of the surface

The prerequisite for perfect adhesion are clean and dry surfaces (e.g. cleaning and degreasing with WEICON Surface Cleaner). The highest strength values can be achieved through additional pre-treatment of the surfaces, such as roughening using blasting or abrasive agents. Several plastics, in particular polyamide, Teflon®, polyolefin etc. are only to be bonded after special surface treatment, for example using fluoridation, low-pressure plasma, corona, flame impingement etc.

Processing

WEICON Easy-Mix products can be processed directly from the double cartridges with the help of the included static mixer. Reject the first 5 cm of the dosed bead. Apply adhesive to only one of the surfaces to be bonded.

The pot life given is for a material quantity of 10 ml at room temperature. If larger quantities are used, the curing time will be faster. Similarly, higher ambient temperatures shorten the cure times (as a rule of thumb, every +10°C increase above room temperature will halve working and curing time). Temperatures below +16°C will extend working and curing times considerably, while below about +5°C, no reaction will take place at all.

Storage

The shelf life is 9 months when stored unopened at a normal climate (+23°C and 50 % rel. humidity).

Note

Any product specifications and recommendations given herein 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 warrant the continuously high quality of our products being free from defects in accordance with and subject to our General Sales Conditions. 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.

Health and Safety

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

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