

Easy-Mix PU-90



1.5 Min. Polyurethane Structural Adhesive

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

Base	polyurethane
Colour after curing	black
Mixing ratio resin/hardener	1:1
Density of the mixture	1,30 - 1,35 g/cm ³
Pot-life at +20°C (+68°F)	90 sec.
Handling strength (35% strength) after	5 min.
Capable of bearing mechanical loads (50% strength) after	10 min.
Final strength (100%) after	12 h
Adhesive gap bridging	0,1 - 4,0 mm
Medium shear strength according to DIN EN 14665 at	
Aluminium	13 N/mm ²
Tensile strength ISO 527 max.	21 N/mm ²
Steel bright	19 N/mm ²
Stainless Steel	17 N/mm ²
Medium e-module +20°C (+68°F)	650 - 750 N/mm ²

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.

Shore hardness D DIN EN ISO 868	66
Tensile Extension ISO 527 max.	35 %
Thermoforming resistance	+65 °C
Temperature resistance	-55 to +125 °C
Thermal diffusivity (23 °C)	0.186 mm ² /s
Thermal conductivity	0.283 W/m-K
Specific heat capacity	1.268 J/(g·K)
Resistivity	1,90 · 10 ¹² Ωm
IMPA-Code	812986

Surface pre-treatment

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. can only 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 18 months when stored unopened at a normal climate (+73°F / +23°C and 50 % rel. humidity).

Safety and health

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.

Available sizes:

10751050-35 Easy-Mix PU-90 50 ml

Accessories:

10650005 Mixing Nozzle,
10653050 Easy-Mix Dispenser D 50, D50
10953001 Processing Spatula,
12955175 Dosing Tips,