

# **WEICON WP**

**Technical Datasheet** 

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pasty, high strength ceramic-filled, extreme high resistance against abrasion and wear residual elasticity and impact resistant

WEICON WP is suitable for the protection of strongly used surfaces. The coating with Plastic-Metal WP provides a high resistance against abrasion and wear and is very resistant against chemicals.

It avoids metal loss and replaces previously applied wear-resistant alloys, ceramic tiles and rubber linings as well as welded metal coatings.

WEICON WP can be used for the regeneration of worn-out metal surfaces or as a wear-resistant coating. A particularly high level of protection is achieved, when the wear is caused done by particles impacting sideways.

### **Technical data**

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	Composition	Epoxy resin ceramic-filled
	Specific Properties p	asty, wear resistant, non-sag
	Mixing ratio by weight % (Resin/Hardener)	100:100
	Pot-life at +20°C (200 g preparation)	approx. 30 Min.
	Density of the mixture	approx. 2,5 g/cm³ g/cm³
	Viscosity of the mixture	900.000 mPa·s
	Max. layer thickness per application	10 mm
	Cure time mechanical loads	16 h
	final hardness	96 h
	Mean compressive strength (+25°C) acc. to DIN 5328	1-83 51 MPa
	Mean tensile strength (+25°C) acc. to DIN 53281-83	22 MPa
	Mean Flexural strength (+25°C) acc. to DIN 53281-83	35 MPa
	Mean strength E-Modul (+25°C) acc. to DIN 53281-83	2.500 - 3.000 MPa
	Shore D (+25°C) acc. to DIN 53281-83	80
	Shrinkage	0,02 %
	Thermoforming resistance	+50 °C
	Colour	grey
	Temperature resistance	-35 up to +120 °C

# Pretreatment of the surface

The surface to be treated or filled up must be clean (metallic clean), dry and free of grease. The same applies to the working tools and mixing vessels. To improve the adhesion, surfaces should be roughened, especially when they are smooth. WEICON Cleaner S or WEICON Sealant and Adhesive Remover help to remove almost all residues. If

necessary, sand blast in addition.

Cast parts which have been exposed to sea water for a long time should be treated with special care as they might contain inorganic salts. It is possible that these salts reach the surface and absorb moisture, thus starting rust formation (rust bubbles under the protective coating). We therefore recommend to heat or flame the surface after sand blasting. If adhesion with the ground is not desired, a separating agent must be applied. For smooth surfaces e.g. WEICON Mould Release Agent F 1000(silicone-free). For porous surfaces WEICON Mould Release Agent Wax P 500.

#### **Processing**

The components should be mixed thoroughly and bubblefree for at least 6 minutes with a mechanical mixer (spiral stirrer) at low speed (max. 500 rpm) to get a uniform mixture. Do not mix more than you are able to use within the pot life.

First apply a thin layer with a spatula – use high pressure when applying the mixture. Then fill up the layer up to the requested layer thickness. The wear resistance can be improved by planing and compressing the material layer with a roll within 2-4 hours after application. For this, the roll should be covered by a

smoothing substance, e.g. WEICON Mould Release Agent or a PE foil.

After 48 hours curing at room temperature (+18 $^{\circ}$ C to + 25 $^{\circ}$ C/ +64,4 $^{\circ}$ F to +77 $^{\circ}$ F) WEICON WP can be machined.

#### Storage

WEICON Plastic Metal at room temperature (but up to max. +25°C) in a dry place. Unopened containers can be stored for 18 months at temperatures from +18°C to +25°C (Epoxy Resin Putty max. 3 years). Opened containers should be used within 6 months.

## 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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