

Introduction

WEICON Plastic Metal is ideal for providing fast, cost effective and durable repairs and coatings to many different types of material. WEICON Plastic Metal is also suitable for tool and mould making.



Description

WEICON WP is a ceramic filled, pasty, two-component epoxy resin system for the protection of strongly used surfaces. The coating with WEICON WP provides a high resistance against abrasion and wear and is very good resistant against chemicals.

WEICON WP avoids metal loss and replaces previously applied wearresistant 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 by particles impacting sideways.

Characteristics and advantages:

- Extreme high resistance against abrasion and wear – high strength
- Residual elasticity and impact resistant
- Very good resistance against chemical substances
- Economic in use

WEICON WP is versatile in use, for example:

- Slides, chutes, container
- Pumps
- Worm housings and spiral conveyors
- Friction plates
- Wood chip and transport blowing machines
- Pulverization plants
- Centrifuges, separators
- Dust filter systems, fly ash filter systems
- Ventilation fan systems

Technical data

Composition	Epoxy resin ceramic-filled
Specific Properties	pasty, 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/cm ³
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 53281-83	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 °C to + 25 °C/ +64,4 °F to +77 °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

WEICON GmbH & Co. KG (Headquarter)

Königsberger Str. 255 · DE-48157 Münster
P.O. Box 84 60 · DE-48045 Münster
Germany

Tel. +49 (0) 251 / 93 22-0
Fax +49 (0) 251 / 93 22-244
Fax +49 (0) 251 / 93 22-233 Export
www.weicon.de · info@weicon.de

WEICON Middle East L.L.C.

Jebel Ali Ind Area 3 · P.O. Box 118 216
Dubai · U.A.E

Phone +971 4 880 25 05
Fax +971 4 880 25 09
Mobile +971 50 545 99 83
www.weicon.ae · info@weicon.ae

WEICON Inc.

20 Steckle Place · Unit 20
Kitchener · Ontario · N2E 2C3
Canada

Phone +1 519 896 5252
Fax +1 519 896 5254
Cell +1 519 590 5168
www.weicon.ca · info@weicon.ca

WEICON Kimya Sanayi Tic. Ltd. Şti.

Yenibosna Mahallesi Yalçın Koreş Caddesi
Arifağa Sokak No: 29 Kat: 3
34530 Yenibosna – İstanbul Turkey
www.weicon.biz.tr · info@weicon.biz.tr

WEICON Romania SRL

Str. Depozitelor 22
540240 Targu Mures, jud. Mures Romania
www.weicon.com · office@weicon.com

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.

WEICON GmbH & Co. KG (Headquarter)

Königsberger Str. 255 · DE-48157 Münster
P.O. Box 84 60 · DE-48045 Münster
Germany

Tel. +49 (0) 251 / 93 22-0
Fax +49 (0) 251 / 93 22-244
Fax +49 (0) 251 / 93 22-233 Export
www.weicon.de · info@weicon.de

WEICON Middle East L.L.C.

Jebel Ali Ind Area 3 · P.O. Box 118 216
Dubai · U.A.E

Phone +971 4 880 25 05
Fax +971 4 880 25 09
Mobile +971 50 545 99 83
www.weicon.ae · info@weicon.ae

WEICON Inc.

20 Steckle Place · Unit 20
Kitchener · Ontario · N2E 2C3
Canada

Phone +1 519 896 5252
Fax +1 519 896 5254
Cell +1 519 590 5168
www.weicon.ca · info@weicon.ca

WEICON Kimya Sanayi Tic. Ltd. Şti.

Yenibosna Mahallesi Yalçın Koreş Caddesi
Arifağa Sokak No: 29 Kat: 3
34530 Yenibosna – İstanbul Turkey
www.weicon.biz.tr · info@weicon.biz.tr

WEICON Romania SRL

Str. Depozitelor 22
540240 Targu Mures, jud. Mures Romania
www.weicon.com · office@weicon.com