

WEICON Casting Resin Plus 90



casting compound | crystal clear | low viscosity | up to 90 mm layer thickness

The epoxy resin system WEICON Casting Resin Plus 90 is a casting compound which cures crystal clear. Its special formulation allows high layer thicknesses up to 90 mm. The compound can also be used to coat sensitive surfaces and protects against damages. The casting resin has a low viscosity, high mechanical stability, is impact-resistant, has a high moisture resistance and a good UV resistance. It can be processed very well manually and mechanically - whether by grinding, filing or drilling. Casting Resin Plus 90 is particularly suitable for applications with high visual requirements. Whether in the production of design objects, furniture construction, trade fair construction, yacht and boat building, wood processing, arts and crafts, or gardening and landscaping - the casting resin is suitable for a wide range of applications.

Characteristics

Filler	unfilled
Texture	liquid
Colour	crystal clear

Processing

Processing temperature	+20 °C to +25 °C	
Component temperature	>3 °C above dew point	
relative air humidity	< 85 %	
Mixing ratio by weight	100:47	
Mixing ratio by volume	100:53	
Viscosity of the mixture	at +25 °C	180-230 mPa·s
Density of the mixture	1,1 g/cm ³	
Consumption	Layer thickness 1.0 mm	1,1 kg/m ²
max. layer thickness	per step	90 mm

Curing

Pot life	at 25 °C, 1 kg batch	30-35 h
Additional layer after	(35 % strength)	2,5 days
Working strength after	(50 % strength)	4 days
Final strength	(100 % strength)	14 days
Shrinkage		0,35 %

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	33 MPa
Elongation at break (tensile)	DIN EN ISO 527-2	3,60 %
E-modulus (tensile)	DIN EN ISO 527-2	1000-1200 MPa
Compressive strength	DIN EN ISO 604	30 MPa
Bending strength	DIN EN ISO 178	10 MPa
Hardness (Shore D)	DIN ISO 7619	73±3
Lap shear strength material thicken. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		15 MPa
Stainless steel V2A sandblasted		12 MPa
Aluminium sandblasted		10 MPa
Galvanized steel		12 MPa

Thermal parameters

Temperature resistance		-35 °C to +120 °C
Tg after curing at room temperature (DSC)		~ 35 °C
Heat deflection resistance (DIN EN ISO 75-2 (A))		29 °C
Thermal conductivity (DIN EN ISO 22007-4)		0,24 W/m·K
Heat capacity (DIN EN ISO 22007-4)		1,86 J/(g·K)

Electrical parameters

Resistance (DIN EN 62631-3-1)		2,26·10 ¹⁴ Ω·m
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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.



Scope of delivery

Processing Spatula | Instructions for use | Gloves

Note

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Accessories

11202500	Cleaner Spray S, 500 ml, transparent
15200005	Cleaner S, 5 L, colourless, transparent
11207400	Surface Cleaner, 400 ml, transparent
15207005	Surface Cleaner, 5 L, transparent
10604515	Mould Release Agent Wax P 500, 150 g
10604025	Mould Release Agent Liquid F 1000, 250 ml, white, milky
13305200	Flex 310 M® Classic MS-Polymer, 200 ml, grey
10519250	Colour Paste Black, 250 g, black
10953001	Processing spatula, 1 PCE
10953003	Processing spatula, 1 PCE
10953064	Can, 1 PCE
10953010	Stirrer Stainless Steel, 1 PCE
15841500	Pump Dispenser WPS 1500, 1,5 L
52000035	Cable Scissors No. 35, 1 PCE

Conversion table

$(^{\circ}\text{C} \times 1,8) + 32 = ^{\circ}\text{F}$	$\text{Nm} \times 8,851 = \text{lb}\cdot\text{in}$
$\text{mm}/25,4 = \text{inch}$	$\text{Nm} \times 0,738 = \text{lb}\cdot\text{ft}$
$\mu\text{m}/25,4 = \text{mil}$	$\times 141,62 = \text{oz}\cdot\text{in}$
$\text{N} \times 0,225 = \text{lb}$	$\text{mPa}\cdot\text{s} = \text{cP}$
$\text{N}/\text{mm}^2 \times 145 = \text{psi}$	$\text{N}/\text{cm} \times 0,571 = \text{lb}/\text{in}$
$\text{MPa} \times 145 = \text{psi}$	$\text{kV}/\text{mm} \times 25,4 = \text{V}/\text{mil}$

Available sizes:

10523002	WEICON Casting Resin Plus 90, 200 g, crystal clear
10523005	WEICON Casting Resin Plus 90, 0,5 kg, crystal clear
10523010	WEICON Casting Resin Plus 90, 1 kg, crystal clear

To the product detail page:



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WEICON Middle East L.L.C. United Arab Emirates phone +971 4 880 25 05 info@weicon.ae

WEICON Czech Republic s.r.o. Czech Republic phone +42 (0) 417 533 013 info@weicon.cz

WEICON GmbH & Co. KG (Headquarters) Germany phone +49 (0) 251 9322 0 info@weicon.de

WEICON Romania SRL Romania phone +40 (0) 3 65 730 763 office@weicon.com

WEICON South East Asia Pte Ltd Singapore Phone (+65) 6710 7671 info@weicon.com.sg

WEICON Inc. Canada phone +1 877 620 8889 info@weicon.ca

WEICON Ibérica S.L. Spain phone +34 (0) 914 7997 34 info@weicon.es

WEICON Italia S.r.l. Italy phone +39 (0) 010 2924 871 info@weicon.it

WEICON SA (Pty) Ltd South Africa phone +27 (0) 21 709 0088 info@weicon.co.za

WEICON Kimya Sanayi Tic. Ltd. Şti. Turkey phone +90 (0) 212 465 33 65 info@weicon.com.tr

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Chemical resistance of WEICON Plastic Metals after curing* (Excerpt)

Exhaust fumes	+	Potassium carbonate	+
Acetone	o	Potassium hydroxide 0-20 % (caustic potash)	+
Ethyl ether	+	Milk of lime	+
Ethyl alcohol	o	Carbolic acid	-
Ethylbenzene	-	Creosote oil	-
Alkalis (alkaline substances)	+	Cresylic acid	-
Hydrocarbons, aliphatic (petroleum derivatives)	+	Magnesium hydroxide	+
Formic acid >10 % (methanoic acid)	-	Maleic acid (cis-ethylenedicarboxylic acid)	+
Ammonia anhydrous 25%	+	Methanol (methyl alcohol) <85 %	-
Amyl acetate	+	Mineral oil	+
Amyl alcohol	+	Naphthalene	-
Hydrocarbons, aromatic (benzene, toluene, xylene)	+	Naphthene	-
Barium hydroxide	+	Sodium carbonate (soda)	+
Petrol (92-100 octane)	+	Sodium bicarbonate (sodium hydrogen carbonate)	+
Hydrobromic acid <10 %	+	Sodium chloride (table salt)	+
Butyl acetate	+	Sodium hydroxide >20 % (caustic soda)	o
Butyl alcohol	+	Caustic soda	+
Calcium hydroxide (slaked lime)	+	Heating oil, diesel	+
Chloroacetic acid	-	Oxalic acid <25 % (ethanedioic acid)	+
Chloroform (trichlormethane)	o	Perchloraethylene	o
Chlorosulphuric acid (wet and dry)	-	Kerosene	+
Chlorinated water (swimming pool concentration)	+	Oils, vegetable and animal	+
Hydrochloric acid	+	Phosphoric acid <5%	+
Chromium bath	+	Phthalic acid, phthalic anhydride	+
Chromic acid	+	Crude oil	+
Diesel fuels	+	Nitric acid <5%	o
Mineral oil and mineral oil products	+	Hydrochloric acid <10 %	+
Acetic acid diluted <5%	+	Sulphur dioxide (wet and dry)	+
Ethanol <85 % (ethyl alcohol)	+	Carbon disulphide	+
Greases, oils and waxes	+	Sulphuric acid <5%	o
Hydrofluoric acid diluted	o	White spirit	+
Tannic acid diluted <7%	+	Carbon tetrachloride (tetrachloromethane)	+
Glycerin (trihydroxipropane)	+	Tetralin (tetrahydronaphthalene)	o
Glycol	o	Toluene	-
Humic acid	+	Hydrogen peroxide <30 % (hydrogen superoxide)	+
Impregnating oils	+	Trichloraethylene	o
Potash	+	Xylene	-

+ = resistant 0 = for a limited time - = not resistant *The storage of all WEICON Plastic Metal types was carried out at +20°C chemical temperature.

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