

Repair Stick Titanium



Wear-resistant | titanium-filled | high-temperature-resistant up to +280 °C (+536 °F) (briefly up to +300 °C (+572 °F))

It is suited for the permanent and wear-resistant repair and bonding of metal parts such as tanks and pipelines, aluminium, light metal and injection moulded parts, shafts and slide bearings, pumps and housings and torn-out threads. The WEICON Repair Stick Titanium can be used in machine and system construction, tank construction and apparatus engineering, and in many other industrial areas.

Characteristics

Base	Epoxy
Filler	titanium
Texture	modelling compound
Colour	brown

Processing

Processing temperature	+15°C to +40°C
Cure temperature	+6 °C to +65 °C
Relative air humidity	< 85 %
Mixing ratio by weight	1:1
Density of the mixture	1,9 g/cm ³

Curing

Pot life	at 20 °C, 10 g batch	90 min.
Working strength after	(80 % strength)	8 h
Final strength	(100 % strength)	72 h
Shrinkage		<1,0 %

Mechanical properties after curing

Compressive strength	ASTM D695	55 MPa
Hardness (Shore D)	ASTM D 2240	80±3

Thermal parameters

Temperature resistance	to +280 °C, briefly up to +300 °C	
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Electrical parameters

Resistance	DIN EN 62631-3-1	ca. 3·10 ¹⁰ Ω·m
Dielectric strength	ASTM D149	11,8 kV/mm
Magnetic		no

Approvals / Guidelines

ISSA Code	75.530.06/07
IMPA Code	812977/78

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.

Surface pre-treatment

For a flawless adhesive bond, surfaces must be clean and dry (e.g. clean and degrease with WEICON Surface Cleaner).

Processing

WEICON Repair Sticks can bridge a bonding gap of max. 15 mm per work step. The specified pot life refers to a material preparation of 25g at room temperature. Larger preparation quantities result in a faster curing time due to the typical reaction heat of epoxy resins (exothermic reaction). Higher temperatures also reduce the pot life and curing time. (General rule: every increase by +10 °C above room temperature results in a decrease of the pot life and curing time by half). Temperatures below +16 °C increase the pot life and curing time significantly. From approx. +5 °C and below, no reaction takes place.



Storage

When unopened, WEICON Repair Sticks can be stored at a constant room temperature of approx. +20°C in a dry place for at least 18 months. Protect from direct sunlight.

Scope of delivery

Adhesive

Accessories

10024313	Surface Cleaner, 400 ml, transparent
10026705	Sealant and Adhesive Remover, 400 ml, pink

Note

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Conversion table

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$	$\text{Nm} \times 8.851 = \text{lb}\cdot\text{in}$
$\text{mm}/25.4 = \text{inch}$	$\text{Nm} \times 0.738 = \text{lb}\cdot\text{ft}$
$\mu\text{m}/25.4 = \text{mil}$	$\text{Nm} \times 141.62 = \text{oz}\cdot\text{in}$
$\text{N} \times 0.225 = \text{lb}$	$\text{mPa}\cdot\text{s} = \text{cP}$
$\text{N}/\text{mm}^2 \times 145 = \text{psi}$	$\text{N}/\text{cm} \times 0.571 = \text{lb}/\text{in}$
$\text{MPa} \times 145 = \text{psi}$	$\text{kV}/\text{mm} \times 25.4 = \text{V}/\text{mil}$

Available sizes

10011970	Repair Stick Titanium, 115 g, brown
10011973	Repair Stick Titanium, 57 g, brown

To the product detail page:



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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	+	Trichloroethylene	o
Impregnating oils	+	Hydrogen peroxide <30 % (hydrogen superoxide)	+
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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