

Repair Stick Steel

Fast-curing | steel-filled | drinking water approval

It is particularly suitable for the fast and high-strength repair and bonding of metal parts and for patching and sealing cracks, holes and leaks in machine parts, tanks and pipelines, containers, pumps and housings, balcony railings, banisters, and torn-out threads. The WEICON Repair Stick Steel can be used in machine and system construction, in tank construction and apparatus engineering, in the food, cosmetics and pharmaceutical industries and in many other applications.

Characteristics

Base	Epoxy
Filler	steel
Texture	modelling compound
Colour	dark grey

Processing

Processing temperature	+15°C to +40°C
Cure temperature	+6 to +40
Relative air humidity	< 85 %
Mixing ratio by weight	1:1
Density of the mixture	2,2 g/cm ³
Gap bridging up to max.	15 mm

Curing

Pot life	at 20 °C, 10 g batch	5 min.
Handling strength	(35 % strength)	10 min.
Working strength after	(80 % strength)	60 min.
Final strength	(100 % strength)	24 h
Shrinkage		<1,0 %

Mechanical properties after curing

Compressive strength	DIN EN ISO 604	55 MPa
Hardness (Shore D)	DIN ISO 7619	80±3
Adhesive strength	DIN EN ISO 4624	8 MPa

Thermal parameters

Temperature resistance		-50 °C to +120 °C, briefly up to +150 °C
Thermal conductivity	DIN EN ISO 22007-4	0,6 W/m·K

Electrical parameters

Resistance	DIN EN 62631-3-1	ca. 5·10 ⁻¹¹ Ω·m
Electrical resistance	ASTM D 257	5 Ω·cm
Dielectric strength		3,0 kV/mm
Magnetic		yes

Approvals / Guidelines

NSF		NSF/ANSI Standard 61
ISSA Code		75.530.15/01
IMPA Code		812925/26

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

Conversion table

(°C x 1.8) + 32 = °F	Nm x 8.851 = lb·in
mm/25.4 = inch	Nm x 0.738 = lb·ft
µm/25.4 = mil	Nm x 141.62 = oz·in
N x 0.225 = lb	mPa·s = cP
N/mm ² x 145 = psi	N/cm x 0.571 = lb/in
MPa x 145 = psi	kV/mm x 25.4 = V/mil

Available sizes

10010241	Repair Stick Steel, 57 g, dark grey
10007705	Repair Stick Steel, 115 g, dark grey

Note
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To the product detail page:



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Repair Stick Steel

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.

Note
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Repair Stick Aqua



For underwater applications | ceramic-filled

Ideal for quick repairs on damp and wet surfaces and for underwater applications. For the repair and sealing of cracks, holes and leaks in petrol and water tanks, radiators, electrical switchboards, sanitary installations and swimming pools. The WEICON Repair Stick Aqua can be used in sanitary and heating system construction, electrical equipment, the maritime sector and many other industrial applications.

Characteristics

Base	Epoxy
Filler	ceramic
Texture	modelling compound
Colour	vintage white

Processing

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

Curing

Pot life	at 20 °C, 10 g batch	25 min.
Handling strength	(35 % strength)	30 min.
Working strength after	(80 % strength)	60 min.
Final strength	(100 % strength)	24 h
Shrinkage		<1,0 %

Mechanical properties after curing

Compressive strength	DIN EN ISO 604	55 MPa
Hardness (Shore D)	DIN ISO 7619	70±3
Adhesive strength	DIN EN ISO 4624	5 MPa

Thermal parameters

Temperature resistance	-50 °C to +120 °C, briefly up to +150 °C	
Thermal conductivity	DIN EN ISO 22007-4	0,5 W/m-K

Electrical parameters

Resistance	DIN EN 62631-3-1	ca. 5·10 ¹¹ Ω·m
Electrical resistance	ASTM D 257	5 Ω·cm
Dielectric strength		3,0 kV/mm
Magnetic		no

Approvals / Guidelines

ISSA Code	75.530.02/03
IMPA Code	812923/24

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.

Curing

+6 to +40

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

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Repair Stick Aqua

Conversion table

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{mm}/25.4 = \text{inch}$
 $\mu\text{m}/25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N}/\text{mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$

$\text{Nm} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{Nm} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{Nm} \times 141.62 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$
 $\text{N}/\text{cm} \times 0.571 = \text{lb}/\text{in}$
 $\text{kV}/\text{mm} \times 25.4 = \text{V}/\text{mil}$

Available sizes

10006608 Repair Stick Aqua, 115 g, vintage white
10008519 Repair Stick Aqua, 57 g, vintage white

To the product detail page:



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Repair Stick Aqua

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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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
Gap bridging up to max.	15 mm

Curing

Pot life	at 20 °C, 10 g batch	30 min.
Handling strength		60 min.
Working strength after	(80 % strength)	4 h
Final strength	(100 % strength)	48 h
Shrinkage		<1,0 %

Mechanical properties after curing

Compressive strength	DIN EN ISO 604	80 MPa
Hardness (Shore D)	DIN ISO 7619	80±3
Adhesive strength	DIN EN ISO 4624	7 MPa

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. 5·10 ¹¹ Ω·m
Electrical resistance	ASTM D 257	5 Ω·cm
Dielectric strength		3,0 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

Conversion table

(°C x 1.8) + 32 = °F	Nm x 8.851 = lb·in
mm/25.4 = inch	Nm x 0.738 = lb·ft
µm/25.4 = mil	Nm x 141.62 = oz·in
N x 0.225 = lb	mPa·s = cP
N/mm ² x 145 = psi	N/cm x 0.571 = lb/in
MPa x 145 = psi	kV/mm x 25.4 = V/mil

Available sizes

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

Note

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Repair Stick Titanium

To the product detail
page:



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Repair Stick Titanium

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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