Epoxy Resin Systems
Repair Sticks

Repair Stick Plastic

plastic-filled | drinking water approval

WEICON Repair Stick Plastic was developed specifically for long-lasting repairs of plastic components and composite materials such as window and door frames, panelling and bumper bars. It remains elastic permanently. It is suitable for bonding metal pieces, such as pipes and pipe bends, fittings and flanges, water tanks, pumps and housings.

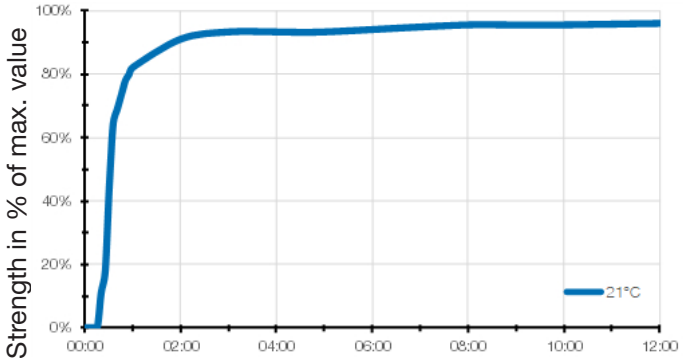
The Repair Stick can be used in window construction, container and apparatus construction, in the food, cosmetics and pharmaceutical industries and in many other areas.

Characteristics		
Base		epoxy
Filler		mineral
Texture		modelling compound
Colour		white-blue
Minimum shelf life	at room temperature	24 mon.

Processing	
Processing temperature	+15 °C (59 °F) to +40 °C (104 °F)
Component temperature	>3 °C above dew point
Cure temperature	+6 °C to +40 °C (+42 °F to +104 °F)
Relative air humidity	< 85 %
Mixing ratio by weight	1:1
Density of the mixture	1,6 g/cm³
Gap bridging up to max.	15 mm

Curing		
Pot life	at 20 °C, 10 g batch	15 min.
Handling strength		40 min.
Working strength after	(80 % strength)	3 h
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	65±3
Adhesive strength	DIN EN ISO 4624	3 MPa
Thermal parameters		
Temperature resistance		from -50 °C (-58 °F) to +120 °C (248 °F), briefly up to +150 °C (302 °F)
Thermal conductivity	DIN EN ISO 22007-4	0,4 W/m·K
Electrical parameters		
Resistance	DIN EN 62631-3-1	~ $5 \cdot 10^{11}$ Ω·m
Electrical resistance	ASTM D 257	5 Ω·cm
Dielectric strength		3,0 kV/mm
Magnetic		no
Approvals / Guidelines		
NSF		NSF/ANSI Standard 61
ISSA Code		75.530.08/09
IMPA Code		812973/74
MIL-Spec	complies with	MIL-A-47284A

Increase in strength



Time in hours

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

The successful application of WEICON Repair Sticks depends on the careful preparation of the surfaces. Dust, dirt, oil, grease, residues, rust, moisture or dampness have a negative impact on adhesion. Best results are achieved with application on clean, solid and thoroughly roughened surfaces.

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Surfaces must be clean, dry and free of grease. Almost all surface contaminants, such as old paint residues, oil, grease, dust and dirt, can be removed with WEICON Surface Cleaner or WEICON Sealant and Adhesive Remover. On surfaces that are extremely dirty or smooth, the adhesion can be improved by mechanical roughening with coarse abrasives.

After mechanical pre-treatment, the surface should be cleaned again with WEICON Surface Cleaner.

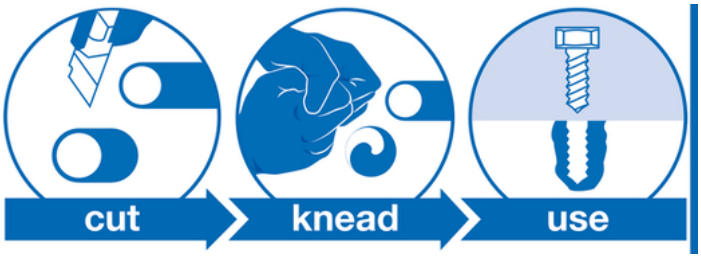
Processing

We recommend an ambient temperature of 20°C (68°F) with less than 85% relative humidity for processing. Only prepare a batch as large as can be processed within the pot life. The pot life and curing time indicated refer to a material batch of 10 g at room temperature. With larger batch sizes or higher processing temperatures, the curing process is faster due to the typical reaction heat of epoxy resins (exothermic reaction).

Twist off or cut off the required amount from the Repair Stick. The components should be mixed together until a homogeneous mixture and colour is achieved. If necessary, the putty can be warmed to room temperature to facilitate mixing.

Work the thoroughly kneaded Repair Stick into the cracks and holes to be filled, and wipe off any excess material before it hardens. To achieve a smooth surface, the material can be smoothed with water or a damp cloth before it hardens. The curing process can be accelerated by heating the Repair Stick or by applying it to a warm surface. After approx. 3 hours at room temperature, the repaired area is mechanically stable and can be threaded, drilled or sanded.

WEICON Repair Sticks can bridge a gap of up to 15 mm per application.



Curing

The specified final hardness refers to curing at 20°C (68°F). At lower temperatures, the curing process can be accelerated by evenly applying heat up to max. 40°C (104°F), e.g. with heat pockets, hot air or fan heaters. Higher temperatures also reduce the pot life and curing time.

The following rule of thumb applies: each increase by +10°C (50°F) above room temperature 20°C (68°F) will decrease the pot life and curing time by half. Temperatures below +16°C (61°F) increase the pot life and curing time, until at approx. +5°C (41°F) and below, almost no reaction will take place at all.

Storage

Store in unopened original container at constant room temperature in a dry place. Avoid sources of heat and both direct and indirect sunlight. Once opened, the shelf life is reduced.

Scope of delivery

Adhesive

Accessories

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

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

10017301	Repair Stick Plastic, 57 g, white-blue
10017334	Repair Stick Plastic, 115 g, white-blue

To the product detail page:

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Chemical resistance 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	+	Trichloraethylene	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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