



## I. COMPOSITE EPOXY STICKS



- #Z801 FAST STEEL**
  - ★ Rebuild engine parts, fix mufflers; radiators.
  - ★ Patch ducts & tanks; seal leaks, fill cracks.
  - ★ Repair metal tools, housing & appliances.
  - ★ Form nuts & bolts; anchor machines & equipment.
  - ★ Working life 3-5 min. Handleable in 5-10 min. Full cure in 60 min.
- #Z805 AQUA MEND**
  - ★ Bonds to wet & underwater surfaces.
  - ★ Emergency and routine repairs to boat decks & hulls.
  - ★ Repair water lines, storage tanks, joints...
  - ★ Temperature resistance upto 120°C.
  - ★ Working life 15-20 minutes, Handleable in 20-30 minutes. Full cure 60 minutes.
- #Z802 QUIKALUMINUM**
  - ★ Repair gutters, downspouts, storm doors & siding.
  - ★ Fix boats and RV's.
  - ★ Mend HVAC, machine parts & casting.
  - ★ Patch aluminium tanks & pipes.
  - ★ Working life 5-7 min. Handleable in 5-10 min. Full cure in 60 min.
- #Z804 QUIK PLASTIK**
  - ★ Repair rigid & semi-flexible plastic.
  - ★ Fix automotive trim & appliance parts.
  - ★ Seal leaks in PVC & ABS pipe.
  - ★ Working life 20-25 min. Handleable in 35-40 min. Full cure in 2-3 hr.

NB: Also available #Z806 Quik Titanium



## II. ULTIMATE STRENGTH EPOXY PUTTY: #Z730 STEELWELD /#8280 JB WELD

**#Z730 STEELWELD:** Ultra High strength, two part, 1:1 mixing, steel filled epoxy putty for heavy duty industrial strength repair and reclamation. Most useful for larger jobs where the convenience of longer working time is desired together with ease of application, repair durability, adhesion, vibration resistance, temperature resistance, versatility etc.

**Easy to use:** 1:1 mixing & long working time easily enables high quality mixing and application for larger industrial repair and rebuilding jobs. Excellent vibration resistance and high strength for permanent heavy duty industrial repair and re-building. Unmatched compressive, adhesion, flexural, tensile lap shear and tensile strengths. Superior temperature resistance from -10°C to 300°C. Long shelf life (25 years). Easy to use tube packings for minimum wastage & correct ratio's.

**Applications:** Repairing and re-building-shafts, lathe beds, bearing housings, key ways, flanges, threaded parts, engine blocks, impellers, valves, pumps .....



- ★ Tensile strength: 3960 psi
- ★ Adhesion: 1800 psi
- ★ Flex strength: 7320 psi
- ★ Tensile lap shear: 1040 psi
- ★ Shrinkage: 0.0%
- ★ Sets in 4-6 hours; Cures fully in 15-24 hours.





## III. WEICON REPAIR EPOXIES

### WEICON TI

Putty - titanium-filled - wear resistant -  
temperature resistant from -35°C up to +200°C, briefly up to + 260°C



This titanium-filled type, is especially suitable for repairs which require high compressive strength and extreme chemical resistance.

Suitable for

- Repairs of pumps, valves, wearing plates, ball bearing seats, shafts, centrifugal pumps and propellers.
- Linings of pump cases, slide bearings, etc.

### WEICON WR2

Putty - mineral-filled - wear resistant -  
temperature resistant from -35°C up to +120°C.



WEICON WR2 putty has a non-dripping consistency and mineral fillers. Due to these properties, this wear-resistant type is mainly used where castable compounds cannot be processed:

- For repairs on conveyors, guides and sliding ways.
- Where rolling or sliding movements cause wear.
- To prevent wear on metal surfaces which are exposed to extreme abrasion and erosion.
- As a wear-resistant under-coating before final coating with WEICON Creamic BL.

### WEICON UW

Putty - steel-filled - cures even under water -  
temperature resistant from -35°C up to +120°C.



Repairs on Flood-gates

Special type with very high bonding strength on damp and wet surfaces and even under water.

Particularly suitable for repair and maintenance work, e.g.:

- Pipes, pumps, valves, tanks, vessels und trays.
- Marine and off-shore sector.
- Sewage installations.
- Wherever dampness and wetness lead to bonding problems.

### WEICON F2

Viscous - aluminium - filled -  
temperature resistant from -35°C up to +120°C.



Filling of holes in an aluminium housing

WEICON F2 is highly recommended for making castings, and in particular for :

- Making moulds, forms and templates.
- Reconditioning porous or damaged castings.
- Making prototypes and holding devices.
- Pouring out swages to test their exactness.
- Low specific weight.



Product type	WEICON Plastic Metal in non-cured condition											WEICON Plastic Metal in cured condition								
	Composition	Specific Properties	Complete Packaging Sizes	Mixing ratio (Weight %)		Pot life at +20°C (min.)	Density of the mixture g/cm <sup>3</sup>	Viscosity of the mixture mPa·s	Max. layer thickness per application mm	Cure times in h		Mean strength at +25°C acc. to DIN 53281-83 / ASTM D 1002						Thermo forming resistance °C / °F	Colour after curing	Temperature resistance °C / °F
				Resin	Hardener					(200 g preparation)	mechanical loads	final hardness	Compressive MPa (psi)	Tensile MPa (psi)	Flexural MPa (psi)	E-Modul MPa (KSI)	Shore hardn. D (ASTM D 1706)			
<b>WEICON A</b>	Epoxy resin steel-filled	putty	0,5 kg 2,0 kg	100	10	60	2,90	1.000.000	10	16	24	80 (11.600)	21 (3.050)	34 (4.950)	3.500 - 5.000 (500 - 725)	90	0,015	+65 (149)	dark-grey	-35 to +120 (-31 to +248)
<b>WEICON B</b>	Epoxy resin steel-filled	viscous	0,5 kg 2,0 kg	100	7	60	2,75	200.000	10	16	24	110 (15.950)	21 (3.050)	52 (7.500)	3.500 - 5.000 (500 - 725)	90	0,030	+65 (149)	dark-grey	-35 to +120 (-31 to +248)
<b>WEICON BR</b>	Epoxy resin bronze-filled	putty	0,5 kg 2,0 kg	100	33	60	1,68	500.000	10	16	24	82 (11.900)	18 (2.600)	22 (3.200)	2.500 - 3.000 (360 - 435)	80	0,020	+50 (122)	bronze	-35 to +120 (-31 to +248)
<b>WEIDLING C</b>	Epoxy resin aluminium-filled	liquid, high-temp. resistant	0,5 kg 2,0 kg	100	8	60	1,62	25.000	60	24	48*1	140 (20.300)	25 (3.600)	77 (11.150)	5.800 - 6.000 (840 - 870)	90	0,010	+130 (266)	grey	-35 to +220 (-31 to +428)
<b>WEICON F</b>	Epoxy resin aluminium-filled	putty	0,5 kg 2,0 kg	100	20	60	1,60	880.000	10	16	24	61 (8.850)	20 (2.900)	37 (5.350)	1.500 - 2.000 (215 - 290)	84	0,020	+60 (140)	aluminium	-35 to +120 (-31 to +248)
<b>WEICON F2</b>	Epoxy resin aluminium-filled	viscous	0,5 kg 2,0 kg	100	14	60	1,45	200.000	10	16	24	43 (6.250)	14 (2.050)	26 (3.750)	1.500 - 2.000 (215 - 290)	79	0,025	+55 (131)	aluminium	-35 to +120 (-31 to +248)
<b>WEICON HB-300</b>	Epoxy resin steel-filled	putty, high-temp. resistant	1,0 kg	100	100	30	2,34	1.700.000	20	12	24	100 (14.500)	27 (3.900)	42 (6.100)	9.500 - 10.000 (1.380 - 1.450)	85	0,015	+120 (248)	dark-grey	-35 to +200 briefly +280 (-31 to +392 briefly +536)
<b>WEICON Ceramic BL</b>	Epoxy resin mineral-filled	liquid, extremely wear resistant	0,5 kg 2,0 kg	100	10	20	1,90	40.000	10	12	24	115 (16.700)	25 (3.600)	98 (14.200)	9.000 - 9.500 (1.300 - 1.380)	88	0,020	+80 (176)	blue	-35 to +180 (-31 to +356)
				100*2	15	40	1,80	6.000	10	16	24	85 (12.300)	22 (3.200)	95 (13.800)	7.000 - 8.000 (1.010 - 1.160)	83				
<b>WEICON Ceramic W</b>	Epoxy resin mineral-filled	putty, extremely wear resistant	0,5 kg 2,0 kg	100	33	120	1,59	600.000	10	24	48*1	140 (20.300)	30 (4.400)	90 (13.100)	4.500 - 5.000 (650 - 725)	85	0,020	+150 (302)	white	-35 to +200 briefly +260*1 (-31 to +392 briefly +500)
<b>WEICON SF</b>	Epoxy resin steel-filled	putty, fast-curing	0,5 kg 2,0 kg	100	13	5	2,60	800.000	10	3	6	70 (10.150)	14 (2.050)	21 (3.050)	2.000 - 2.500 (290 - 360)	85	0,030	+50 (122)	dark-grey	-35 to +90 (-31 to +194)
<b>WEICON ST</b>	Epoxy resin metallic-filled	putty, non corrosive	0,5 kg 2,0 kg	100	50	60	1,64	550.000	10	16	24	80 (11.600)	27 (3.900)	38 (5.500)	2.000 - 2.500 (290 - 360)	80	0,020	+50 (122)	grey	-35 to +120 (-31 to +248)
<b>WEICON TI</b>	Epoxy resin titanium-filled	putty, wear resistant	0,5 kg 2,0 kg	100	33	120	1,61	550.000	10	24	48*1	105 (15.200)	35 (5.100)	100 (14.500)	4.500 - 5.000 (650 - 725)	80	0,020	+150 (302)	grey	-35 to +200 briefly +260*1 (-31 to +392 briefly +500)
<b>WEICON UW</b>	Epoxy resin steel-filled	putty, cures even under water	0,5 kg 2,0 kg	100	50	60	1,63	500.000	10	16	24	82 (11.900)	28 (4.050)	38 (5.500)	2.000 - 2.500 (290 - 360)	85	0,020	+50 (122)	dark-grey	-35 to +120 (-31 to +248)
<b>WEICON WR</b>	Epoxy resin steel-filled	liquid, wear resistant	0,5 kg 2,0 kg	100	15	45	2,30	20.000	10	16	24	110 (15.950)	33 (4.800)	80 (11.600)	5.000 - 5.500 (725 - 800)	90	0,020	+65 (149)	black	-35 to +120 (-31 to +248)
<b>WEICON WR2</b>	Epoxy resin mineral-filled	putty, wear resistant	0,5 kg 2,0 kg	100	25	45	1,67	560.000	10	16	24	71 (10.300)	29 (4.200)	39 (5.650)	2.500 - 3.000 (360 - 435)	82	0,025	+65 (149)	dark-grey	-35 to +120 (-31 to +248)
<b>WEICON Epoxy Resin Putty</b>	Epoxy resin mineral-filled	putty, high-temp. resistant	0,1 kg 0,4 kg 0,8 kg	100	100	30	2,00	Paste	20	2	3	80 (11.600)	30 (4.350)	56 (8.100)	4.000 - 6.000 (580 - 870)	87	0,005	+95 (203)	green	-35 to +200 (-31 to +392)
<b>WEICON Casting Resin MS 1000</b>	Epoxy resin unfilled	liquid	1,0 kg	100	20	20	1,10	1.300	10	24	36	60 (8.700)	25 (3.600)	285 (41.300)	17.000 - 18.000 (2.460 - 2.610)	65	0,200	+50 (122)	transparent, slight inherent colour	-35 to +120 (-31 to +248)

\*Plastic Metal TI can be machined after 16 hours at room temperature (+20°C), After 48 hours at room temperature, temper-hardening in four steps ( 3h +50°C, 2 h +90°C, 2 h +130°C, 1 h +170°C). After temper – hardening a permanent temperature resistance of +200°C is reached. \*\* WEICON Ceramic BL is supplied with a standard hardener.

Conversion factors: (°C x 1.8) +32 = °F • kV/mm x 25.4 = V/mil • mm / 25.4 = inches • µm / 25.4 = mil • N x 0.225 = lb • N/mm x 5.71 = lb/in • N/mm x 5.71 = pli • N/mm<sup>2</sup> x 145 = psi • MPa x 145 = psi • MPa x 0.145 = KSI • mPa.s = cP • N.m x 8.851 = lb.ft • N.m x 0.738 = lb.ft • N.mm x 0.142 = oz.in • kg x 2.2046 = lb



## IV. PIPE/ DUCT REPAIRS & RE-CONDITIONING



Corrosion damage on 10" pipe



Apply 2-part Epoxy/#Z704 Rustex



Syntho-Glass wrapped over Epoxy



30 Minutes later, project complete

### (i) Surface Preparation:

(a) **#Z704 RUSTEX:** Converts rust into a polymer protected organo - metallic complex that stops the process of further rusting & strengthens the existing rusted surface. Neutral Ph - 7. Rust converted surface passes 500 hours salt spray test. Coverage 100 - 125 sq ft per kg /25 microns per coat.



Before Application After Application

(b) **#Z77 RUST & SCALE REMOVER (RTU):** Fast action, easy to apply (Brush /Dip) rust & scale remover.

### (ii) Repair/Reconditioning

**Synthoglass:** Fiber glass cloth pre - impregnated with a water (salt /fresh) activated resin. Repairs & reinforces any diameter pipe in minutes. Initial setting time 30 minutes (24°C). Suitable for all types of Pipes - Steel, SS, PVC, Copper, FRP, Concrete, Rubber... Restores pipes to original PSI rating.

- Tensile strength: 36448 psi  
- Flexural strength: 26100 psi

- Dielectric strength: 16060v.  
- Temperature resistance 148°C.  
(Continuous) /260°C (Intermittent).

- No affect of 50% sulfuric acid, 20% Hcl, 20% Sodium Hydroxide, Gasoline...

### (iii) Overlay

**EPIGEN 1311 High Build Epoxy Coating #2050 POLYHYB Hybrid Polymer Anti - Corrosion Coating.**

**Applications:** Strengthening & reinforcing corrosion weakened pipes & ducts.

## V. UNIVERSAL PATCHING COMPOUND

**#ZFC-3 FASTPATCH:** Two component, fibreglass filled epoxy adhesive system solidifies at room temperature to form a tough, infusible material possessing good mechanical properties and adhering strongly to suitably treated metal, wood, concrete, ceramic and fibreglass surfaces.

Fast curing is particularly suitable for emergency repairs. Examples are pipe and duct repairs where minimum patching time is essential. Its thixotropic nature allows it to be used on vertical as well as horizontal surfaces, and the inclusion of chopped fibreglass reinforcement allows bridging of large gaps or holes in pipes, ducting.

### Key Specifications:-

Colour of mix	Blue-green when mixed as directed
Pot life of mix	5-10 minutes at 25°C
Tack free time	15 minutes at 25°C on 5mm section
Max service temp	80°C
Ultimate tensile strength	207 kgf/cm <sub>2</sub>
Elongation	0.7%
Ultimate flexural strength	393 kgf/cm <sub>2</sub>



**Hydraulic pressure test results:** No failure observed at a pressure of 500 psi.

**Applications:** Emergency repair/ patching of cracks, gaps, holes... pipes, ducts, machine bodies.....

## VI. HIGH PERFORMANCE STEEL FILLED EPOXY COATING

### #Z712 QUIKSTEEK CRS:

Corrosion & abrasion resistant, steel filled universal epoxy coating, protects metallic as well as non-metallic surfaces against wear, abrasion, erosion, chemicals, acids, alkalis, solvents, oil, rust, & corrosion ... & has utility as a containment coating on concrete floors, pipes, storage tanks. Tough epoxy is a long term solution to most industrial surface protection application.



Coating in LRS Tank

- ★ Fully machineable. Sets in 30 minutes, handleable in 6 hours, machineable in 12 hours.
- ★ High temperature resistance: 400 F continuous.
- ★ Prevents abrasion, erosion & cavitation in high velocity fluid flow systems, especially at vector points.
- ★ Excellent resistance to wear. Superior to common ceramic filled epoxy coatings.

**Applications:** Water, slurry & chemical pipelines, storage tanks ... metallic surfaces weakened by erosion, corrosion & cavitation ... oil, chemical & solvent resistant floor coating ... coating the insides of concrete reservoirs & chemical storage tanks, shafts, impellers, mining equipments ... coating the insides of pumps handling fluids flowing at high velocities with particulate matter.... LRS tanks.

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