



WEICON Applications and Products

MINING, CEMENT & HEAVY MATERIAL HANDLING



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V 1.25

Bonding a wheel and gearwheel in a gravel plant



DESCRIPTION:

- ▶ cleaning with WEICON Surface Cleaner
- ▶ high-alloy and hardened steels are bonded with WEICONLOCK AN 306-38 Retaining Cylindrical Assemblies, applied in a circumferential and full-surface bead



Surface Cleaner

- ▶ 150 ml ▶ 400 ml
- 10024317 10024313



AN 306-38

- ▶ 10 ml ▶ 20 ml
- 10030478 10016443
- ▶ 50 ml ▶ 200 ml
- 10017888 10020027



Advantages of our solution:

- ▶ high frictional connection with high radial and axial forces



Repair of conveyor belts in a quartz mine



DESCRIPTION:

- ▶ removing coarse dirt
- ▶ roughening and levelling the damaged areas with an angle grinder (rasp disc or cup wheel)
- ▶ cleaning the surface with WEICON Cleaner Spray S
- ▶ mixing and applying WEICON Primer G with a paint brush
- ▶ allow WEICON Primer G sufficient time to flash off
- ▶ depending on the container application of WEICON Urethane 85
- ▶ smoothing the surface with WEICON Contour Spatula Flex



Cleaner Spray S

- ▶ 500 ml
- 10000147



Belt Repair-Kit 550

- ▶ 500 g + Primer G 50 g
- 10055014

Belt Repair-Kit 590

- ▶ 540 g + Primer G 50 g
- 10052425



Dispenser 2C 10:1

- 10057514

VIDEO



Advantages of our solution:

- ▶ very cost-effective way to restore the functioning of the conveyor belts and thus extension of the service life
- ▶ versatile application possibilities

Mounting stoneware sewers with plastic pipes



DESCRIPTION:

- ▶ installation of a dosing system due to the large material consumption
- ▶ gap-filling and bonding with generous application of WEICON Flex 310 M® 2 K
- ▶ with this type of drum dosing system, the adhesive is mixed only in the mixing nozzle



Flex 310 M® 2 K

- ▶ 250 ml
- ▶ special mixing nozzle
- 10027733
- 10027692
- grey

Advantages of our solution:

- ▶ compared to other adhesives: elasticity, tolerance compensation, good sealing effect, high adhesive strength and curing independent of ambient conditions thanks to 2C system
- ▶ adhesive is only mixed in the mixing nozzle

Repair of stirring units in a gold mine



DESCRIPTION:

- ▶ abrasion on stirring units/ propellers caused by sand and stones
- ▶ sandblasting (SA 21/2) and cleaning with Cleaner Spray S
- ▶ reconditioning of the propeller blades by coating with WEICON WP
- ▶ 16 kilograms were used



Cleaner Spray S

- ▶ 500 ml
- ▶ 10000147



WEICON WP

- ▶ 0.2 kg
 - ▶ 2.0 kg
 - ▶ 10.0 kg
- 10054399 10032320 10032939

Advantages of our solution:

- ▶ restoring the efficiency of the stirring units
- ▶ durable abrasion protection for longer service life

Repairing the foundation of a conveyor system in a copper mine



DESCRIPTION:

- ▶ removing loose foundation parts
- ▶ creating formwork for the area to be repaired
- ▶ casting WEICON CBC into the formwork
- ▶ after curing: removing the formwork
- ▶ 1,700 kilograms WEICON CBC were used



WEICON CBC Chocking Backing Compound

- ▶ 0.5 kg
10064790
- ▶ 3.0 kg (2,0 l)
10045020
- ▶ 10.0 kg (6,6 l)
10032939

Advantages of our solution:

- ▶ increasing the safety and restoring the stability of the conveyor system

Gap compensation on a press plate in a quarry



DESCRIPTION:

- ▶ the support surface of a burst, 400kg heavy press plate did not show 100% force closure anymore
- ▶ previous solution: replacing the press plate every two months
- ▶ cleaning with WEICON Cleaner S
- ▶ generous application of WEICON HB 300 to the surface and fixings



Cleaner S

- | | |
|--------------------|--------------------|
| ▶ 1 L
10007611 | ▶ 5 L
10000347 |
| ▶ 10 L
10000348 | ▶ 28 L
10053455 |

Advantages of our solution:

- ▶ gap filling with WEICON HB 300
- ▶ avoiding having to replace the press plate
- ▶ cost savings of approx. 35,000 € – for the new press plates



WEICON HB 300

- | | | |
|----------------------|----------------------|----------------------|
| ▶ 0.2 kg
10004472 | ▶ 0.5 kg
10001084 | ▶ 1.0 kg
10000099 |
|----------------------|----------------------|----------------------|

Repair of a coal mill



DESCRIPTION:

- ▶ over the years, the coal granulate had left clearly visible traces
- ▶ pre-cleaning with WEICON Cleaner Spray S
- ▶ making an exact applicator/a gauge
- ▶ reconditioning and restoration of the sealing surface using WEICON WP and WEICON WR2
- ▶ application of an additional protective layer with WEICON Ceramic BL



Cleaner Spray S

▶ 500 ml
10000147



WEICON WP

▶ 0.2 kg ▶ 2.0 kg ▶ 10.0 kg
10054399 10032320 10032939



WEICON WR2

▶ 0.5 kg ▶ 2.0 kg
10000087 10000088



WEICON Ceramic BL

▶ 0.2 kg ▶ 0.5 kg ▶ 2.0 kg
10054394 10000093 10005233

Advantages of our solution:

- ▶ economic and simple repair
- ▶ no welding or exchange of parts necessary
- ▶ extension of the service life of the coal mill

Repair of a stone crusher plate in one of the largest quarries in the world



DESCRIPTION:

- ▶ heavy wear and distortion on the panels due to friction and vibration
- ▶ cleaning with WEICON Cleaner Spray S
- ▶ application of 50 kg WEICON WR on one panel
- ▶ total application of 400 kg WEICON WR on eight stone crusher plates



Cleaner Spray S

- ▶ 500 ml
10000147



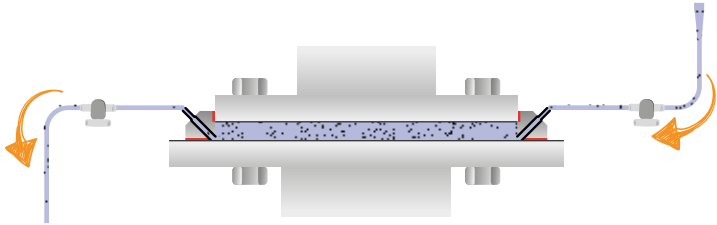
WEICON WR

- ▶ 0.2 kg
10054400
- ▶ 0.5 kg
10000077
- ▶ 2.0 kg
10000078

Advantages of our solution:

- ▶ perfect vibration and wear resistance
- ▶ high cost savings, as there is no need for complete replacement
- ▶ six-times longer service life
- ▶ fast, accurate, effective and long-lasting repair

Gap compensation on a crusher in a grinding mill



DESCRIPTION:

- ▶ treatment of the inner ring with WEICON Silicone Spray to enable later disassembly
- ▶ attachment of injection packers with WEICON Easy-Mix PU-90
- ▶ use of WEICON Repair Stick Steel to seal the gap before casting
- ▶ injection of WEICON WR with the aid of the WEICON Injection Packer Set
- ▶ wear within 4 months, repair 4 times a year, wear from 100 mm to 20 mm
- ▶ approx. 20 kg used for one repair

Advantages of our solution:

- ▶ precisely fitting, stable gap compensation
- ▶ smooth running of the mill ensured
- ▶ extension of the service life



Repair Stick Steel

- ▶ 57 g ▶ 115 g
- 10010241 10007705



Injection Packer Set

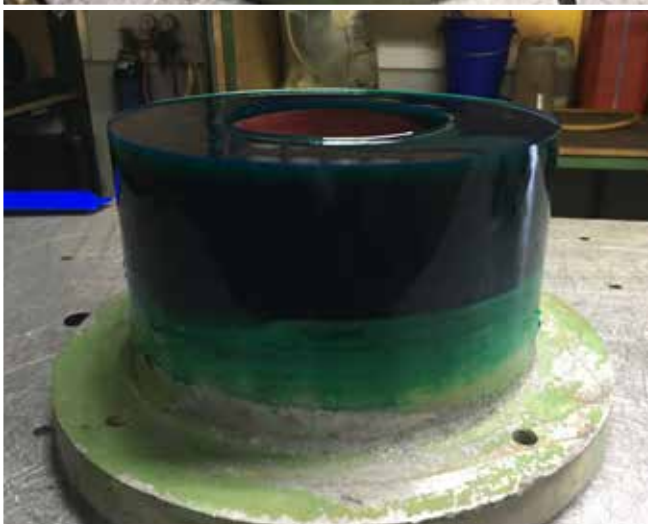
- ▶ System for gap compensation on bridges, pillars, machines, and plants.
- 10057667



WEICON WR

- ▶ 0.2 kg ▶ 0.5 kg ▶ 2.0 kg
- 10054400 10000077 10000078

Repair of a flange/sleeve in a gravel plant for fine sand extraction



DESCRIPTION:

- ▶ cleaning with WEICON Cleaner Spray S
- ▶ sandblasting (SA 2½)
- ▶ repeated cleaning with WEICON Cleaner Spray S
- ▶ wetting of the surfaces to be demoulded with WEICON Mould Release Agent liquid
- ▶ approx. 10 minutes flash-off time
- ▶ mixing of WEICON Urethane 80
- ▶ adding WEICON Colour Paste Black as required
- ▶ vacuum suction to avoid air bubbles
- ▶ pouring in the mixed WEICON Urethane 80
- ▶ heating the casting surface with a hot air gun to avoid air bubbles
- ▶ curing in the oven at approx. 60 °C for 24 hours
- ▶ use of compressed air to facilitate demoulding



Cleaner Spray S

- ▶ 500 ml
10000147

Mould Release Agent

- ▶ 400 ml
10000154



Urethane 80

- ▶ 500 g
10012368

VIDEO



Advantages of our solution:

- ▶ fast repair of the machine part
- ▶ avoiding a replacement of special components
- ▶ high cost saving

Repair of a conveyor belt



DESCRIPTION:

- ▶ cleaning with WEICON Cleaner Spray S
- ▶ application of WEICON Primer G for optimum adhesion
- ▶ working WEICON Urethane 85 into the rubber surface of the conveyor belt with WEICON Contour Spatula Flexy



Cleaner Spray S

▶ 500 ml
10000147



Belt Repair-Kit

10052425

VIDEO



Advantages of our solution:

- ▶ replacing the conveyor belt and complex vulcanisation not necessary
- ▶ fast and easy repair
- ▶ significant extension of the service life of the conveyor belt



Repair of rubber pipelines in gravel plant



DESCRIPTION:

- ▶ The pumping of sand causes erosion and cracks on the surface of the rubberised joints and connectors
- ▶ Previous solutions such as hot welding, pouring rubber or attaching patches with glue were insufficient, and consequently the parts had to be purchased anew
- ▶ Cleaning of larger holes and cracks with WEICON Cleaner Spray S, treatment with WEICON Primer G
- ▶ Followed by filling with WEICON Urethane 85
- ▶ Outer protective layer with WEICON Urethane 80 and for reinforcement insert with Paracord



Cleaner Spray S

- ▶ 500 ml
- 10000147



WEICON Urethane 80

- ▶ 500 g
- 10012368



WEICON Urethane 85

- ▶ 500 g Work package
- ▶ 540 g Cartridge
- 10057130
- 10057188

Advantages of our solution:

- ▶ extension of service life from 500 to 1200 hours
- ▶ cost-effective repair and maintenance

Impeller repair in a cement factory



DESCRIPTION:

- ▶ the raw material had become deeply ingrained in the impeller blades
- ▶ the impeller had a total of 14 blades that needed to be repaired
- ▶ the surface was mechanically cleaned and sanded
- ▶ it was cleaned with WEICON Cleaner Spray S
- ▶ this primer (bonding agent) was used: WEICON HP
- ▶ filling material: WEICON WPN
- ▶ top coat (smoothing layer): WEICON Ceramic HC 220
- ▶ for the success of the repair, it was essential that the surface be as smooth as possible
- ▶ all three products were applied wet-on-wet (pay attention to the layer curing times)
- ▶ after the repair was completed, the impeller had to be balanced



Cleaner Spray S

- ▶ 500 ml
- ▶ 10000147



WEICON HP

- ▶ 0.2 kg
- ▶ 0.5 kg
- ▶ 2.0 kg
- ▶ 10054393
- ▶ 10054003
- ▶ 10054004



WEICON WPN

- ▶ 2.0 kg
- ▶ 13,62 kg
- ▶ 10056868
- ▶ 10050041



WEICON Ceramic HC 220

- ▶ 0.2 kg
- ▶ 0.5 kg
- ▶ 2.0 kg
- ▶ 10060702
- ▶ 10060705
- ▶ 10060707

Advantages of our solution:

- ▶ optimised maintenance

Coating of a cyclone in the mining industry



DESCRIPTION:

- ▶ Mechanical cleaning, substrate pre-treatment, cleaning with WEICON Cleaner Spray S
- ▶ Application of adhesive layer with WEICON HP
- ▶ After curing, application of a second coat with WEICON WP
- ▶ Embedding of 3 mm ceramic balls into the still wet surface
- ▶ After curing, final sealing with WEICON HP
- ▶ Abrasion protection coating against limestone particles of 3 to 4 mm in size



Cleaner Spray S

▶ 500 ml
10000147



WEICON HP

▶ 0.2 kg 10054393 ▶ 0.5 kg 10054003 ▶ 2.0 kg 10054004



WEICON WP

▶ 0.2 kg 10054399 ▶ 2.0 kg 10032320 ▶ 10.0 kg 10032939

👍 Advantages of our solution:

- ▶ protection against abrasion
- ▶ extension of service life
- ▶ no expensive purchase of new parts necessary

Interior coating of the cladding of a bucket elevator in a salt mine



DESCRIPTION:

- ▶ more than 120 m² of steel surface were coated using the spray method with 120 kg of WEICON GL-S and WEICON Ceramic HC 220
- ▶ in the bucket elevator, salt is transported upwards over six levels
- ▶ the interior of the bucket elevator is lined with steel sheets, which had been corroded by salt dust due to a simple paint coating inside
- ▶ cleaning with WEICON Cleaner Spray S after sandblasting
- ▶ the resin component was heated to approx. 50 °C before mixing
- ▶ application of a layer of WEICON GL-S
- ▶ application of a layer of WEICON Ceramic HC 220
- ▶ search for possible defects, followed by inspection of the layer thickness



Cleaner Spray S

- ▶ 500 ml
- ▶ 10000147



WEICON GL-S

- ▶ 0.2 kg 10060361
- ▶ 0.5 kg 10060362
- ▶ 2.0 kg 10060363



WEICON Ceramic HC 220

- ▶ 0.2 kg 10060702
- ▶ 0.5 kg 10060705
- ▶ 2.0 kg 10060707

Advantages of our solution:

- ▶ increases the intervals between service maintenance
- ▶ the condition of the coating is visible through the control layer (first layer), improving maintenance monitoring

Filling the gap on a rotor shaft in a gravel washing plant



DESCRIPTION:

- ▶ a 4 mm gap between the inner and outer shaft needed to be filled with WEICON WR, without air inclusions, to increase the shaft stability
- ▶ at intervals of one metre, threaded holes towards the gap were drilled in order to attach a hose with valve to them
- ▶ WEICON WR was pressed through the hose into the gap, until the top drill hole was reached
- ▶ after 24 hours, WEICON WR had completely cured



WEICON WR

- | | | |
|----------|----------|----------|
| ▶ 0.2 kg | ▶ 0.5 kg | ▶ 2.0 kg |
| 10054400 | 10000077 | 10000078 |

Advantages of our solution:

- ▶ no need to purchase an expensive new component for the system
- ▶ can be produced directly in the workshop

VIDEO



Maintenance work on the outlet base plate of a hopper in a mine



DESCRIPTION:

- ▶ sandblasting, then removal of sandblasting residues (dust)
- ▶ cleaning the surface (using WEICON Cleaner S, WEICON Surface Cleaner)
- ▶ application of wear protection WEICON WP
- ▶ use of PE foil to compress and smooth out the surface



Cleaner Spray S

- ▶ 500 ml
- 10000147



Surface Cleaner

- ▶ 150 ml
- ▶ 400 ml
- 10024317
- 10024313

Advantages of our solution:

- ▶ maintenance period extended from three to a minimum of six months, effectively doubling the service interval
- ▶ the plate can be recoated once the wear protection layer has worn away
- ▶ protects the base material
- ▶ reduces system downtime



WEICON WP

- ▶ 0.2 kg
- ▶ 2.0 kg
- ▶ 10.0 kg
- 10054399
- 10032320
- 10032939

Repair/coating of a gravel hopper in a concrete plant



DESCRIPTION:

- ▶ A heavily used bucket needed repairing
- ▶ Many years ago, the bucket was equipped with PU wear protection mats all around
- ▶ Over time, the mats have loosened, sand moisture and grit have infiltrated the mats and loosened them from the material support
- ▶ Preparation: Area calculation approx. 11.22 cm³ / approx. 1.4 m², marking, removal of damaged material
- ▶ Pre-treatment of the substrate: rust removal with Bristle Blaster, then cleaning with WEICON Industrial Cleaner
- ▶ Final cleaning with WEICON Industrial Cleaner
- ▶ Application of WEICON WR2 over a wide area
- ▶ After the drying phase, coating with WEICON Ceramic BL



Industrial Cleaner

- ▶ 500 ml
10055297



WEICON WR2

- ▶ 0.2 kg
10054401
- ▶ 0.5 kg
10000087
- ▶ 2.0 kg
10000088



WEICON Ceramic BL

- ▶ 0.2 kg
10054394
- ▶ 0.5 kg
10000093
- ▶ 2.0 kg
10005233

Advantages of our solution:

- ▶ low-cost permanent repair

Repair of a centrifugal separator in a concrete plant



DESCRIPTION:

- ▶ the polyurethane coating of the centrifugal separator had been damaged over time by conveying gravel and sand
- ▶ cleaning with WEICON Cleaner S
- ▶ application of WEICON Primer G and flash-off time of approx. 30 minutes
- ▶ mixing of WEICON Urethane 85 resin and hardener thoroughly without air bubbles
- ▶ filling the damaged areas with WEICON Urethane 85
- ▶ application of WEICON Urethane 85 with WEICON Contour Spatula Flexy and paint brush and subsequent smoothing out



Cleaner Spray S

- ▶ 500 ml
- 10000147



Urethane 85

- ▶ 500 g
- ▶ 540 g
- 10057130
- 10057188
- Work Package
- Cartridge



Primer G

- ▶ 50 g
- 10057199

Advantages of our solution:

- ▶ fast and easy repair
- ▶ very good wear protection
- ▶ complete renewal of the polyurethane coating could be avoided
- ▶ high cost and time savings
- ▶ low material input (1 kg WEICON Urethane 85)

Repair of a damaged area on the conveyor belt of a bucket elevator in the cement industry



DESCRIPTION:

- ▶ removing coarse rubber residues from the damaged area
- ▶ roughening the repair area with abrasive cloth
- ▶ cleaning with WEICON Cleaner Spray S
- ▶ application of WEICON Primer G
- ▶ application of WEICON Urethane 85



Cleaner Spray S

- ▶ 500 ml
- 10000147



Urethane 85

- ▶ 500 g
- ▶ 540 g
- 10057130
- 10057188
- Work Package
- Cartridge



Primer G

- ▶ 50 g
- 10057199

Advantages of our solution:

- ▶ ropes in the conveyor belt are protected against corrosion
- ▶ extension of the service life

Coating of rotary valve in a cement plant



DESCRIPTION:

- ▶ a mineral material is conveyed, which causes strong adhesion to the rotary valve and the scraper
- ▶ the stainless steel components (approx. 3.5 m²) were sandblasted, heated with a fan heater and then coated with a 2-layer system of WEICON Anti-Stick
- ▶ the use of WEICON Anti-Stick is intended to extend the service life



WEICON Anti-Stick

- | | | |
|----------|----------|----------|
| ▶ 0.2 kg | ▶ 0.5 kg | ▶ 2.0 kg |
| 10062938 | 10062940 | 10062941 |

👍 Advantages of our solution:

- ▶ longer service life
- ▶ protection of the base material
- ▶ efficient performance



Repair and protection of a screw conveyor in a copper mine



DESCRIPTION:

- ▶ in copper mines, screw conveyors are used to transport ores and other materials. Particularly useful when the materials are fine-grained, powdery or loose. These materials are highly corrosive
- ▶ due to abrasion and wear, the blades lost up to 20 mm of metal
- ▶ the surface was roughened with a grinder to remove the protective paint and roughen the surface
- ▶ first, a layer of WEICON HP was applied as a primer
- ▶ then, a layer of WEICON WP was added “wet-on-wet” and compacted to make the surface as smooth as possible
- ▶ as a surface finish for visual inspection WEICON GL-S was added on one of the screws



Cleaner Spray S

- ▶ 500 ml
- 10000147



WEICON HP

- ▶ 0.2 kg
- ▶ 0.5 kg
- ▶ 2.0 kg
- 10054393
- 10054003
- 10054004



WEICON WP

- ▶ 0.2 kg
- ▶ 2.0 kg
- ▶ 10.0 kg
- 10054399
- 10032320
- 10032939



WEICON GL-S

- ▶ 0.2 kg
- ▶ 0.5 kg
- ▶ 2.0 kg
- 10060361
- 10060362
- 10060363

Advantages of our solution:

- ▶ very good wear protection
- ▶ cost-effective repair and maintenance
- ▶ fast and reliable repair solution reducing down time considerably

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