



WEICON

# APPLICATIONS AND PRODUCTS MARINE INDUSTRY







www.weicon.com













Management System ISO 9001:2015 ISO 14001:2015



### WEICON CBC Chocking Backing Compound

Specially developed for the shimming and back filling of systems that are difficult to align.





#### WEICON Ceramic BL

Coating of a butterfly valve.



#### WEICON Ceramic BL

Coating of ship propellers.



000

Ш

#### WEICON Urethane 85

Repair of a shaft seal ring on a ship propulsion system.



### WEICON WR

Ш

Ш

Repair of a ship propulsion shaft. Repairing and filling the damage caused by cavitation.

Ш

#### WEICON Ceramic BL

Corrosion protection coating with WEICON Ceramic BL.

#### WEICON Urethane 80

Final coating for protection against marine animals.





Ш

### W 44 T®

Combines corrosion protection, water repellency, lubrication, conservation and cleaning in one single product.



## VA 100

WEICON Contact VA 100 is a universal type for the bonding of metals, plastic and rubber.



#### **WEICON A**

Gap compensation on the anchor capstan.



Sealing of the stabilizer shaft.







Repair of a bronze propeller shaft.



#### Fast-Metal Minute Adhesive

Repair of the cylinder block of a ship engine.











Ш

Ш

Ш









## Repair of a ship or boat propeller







## Description:

- ► Clean with WEICON Cleaner Spray S
- ► Sandblast
- ► Clean again with Cleaner Spray S
- ▶ Fill the cavitation damage with WEICON HB 300
- ► Grind the repaired surface until flat
- ► Seal the surface with WEICON Ceramic BL





### Cleaner Spray S

▶ 500 ml 10000147 IMPA: 45 08 01

### WEICON HB 300

▶ 0,2 kg 10004472 10001084

▶ 0,5 kg

▶ 1,0 kg 10000099 IMPA: 81 29 51



#### WEICON Ceramic BL

▶ 0,2 kg 10054394

▶ 0,5 kg 10000093 IMPA: 81 29 37

▶ 2,0 kg 10005233 IMPA: 81 29 38



- ► No need to purchase new parts
- ► Fast, cost-effective repair/maintenance



## Attachment and alignment to hose covers and couplings on bunker station in harbour





## Description:

- ► Clean the surface with WEICON Cleaner Spray S
- ► Align hose covers
- ► Apply WEICON Repair-Tape 10 cm x 3.5 m



### WEICON Repair-Tape

- ► 5 cm x 1,5 m 10057453
- ► 5 cm x 3,5 m 10057454
- ► 10 cm x 3,5 m 10057455



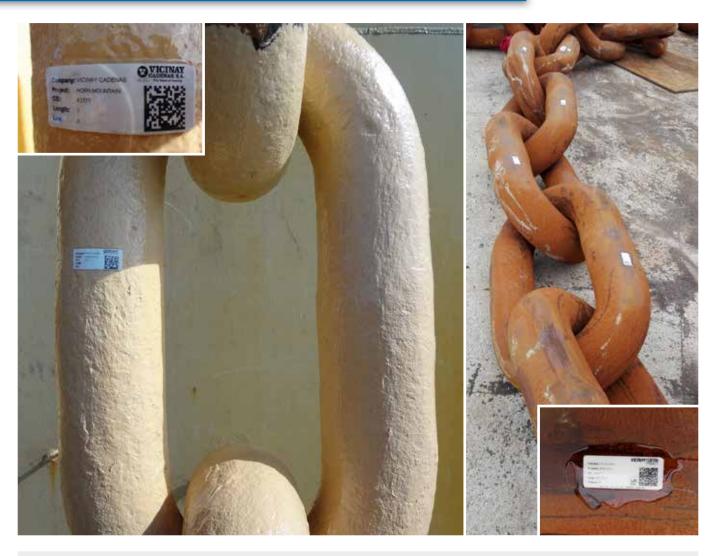
## Advantages of our solution:

► Simple, inexpensive and reliable sealing

RN: **PS251** 



## Fixing indicators on chain links for quality assurance



## Description:

- ► roughening the surface by sanding
- ► cleaning with WEICON Cleaner Spray S
- ► fixation of labels/indicators with NFC chips with the aid of WEICON Epoxy Minute Adhesive



## Advantages of our solution:

- ▶ withstands permanent exposure to seawater
- one year after bonding, continued perfect adhesion and surface quality was demonstrated in a test
- ► reading of the labels and thus traceability of the chain links permanently possible





► 500 ml 10000147 IMPA: 45 08 01



**Epoxy Minute Adhesive** 

► 24 ml 10000133



## Repair of the seal of a butterfly valve on a ship



## Description:

- ► Rubber area on the body of a ship's butterfly valve damaged by maintenance/assembly
- ► Grind the surface
- ► Clean with WEICON Cleaner Spray S
- ► Apply WEICON Primer G
- ► Repair with WEICON Urethane 85
- ► Grind the surface again
- ► The repair withstood 6 bar during pressure test



### Cleaner Spray S

▶ 500 ml 10000147 IMPA: 45 08 01



#### Primer G

Special bonding agent for urethanes for the pre-treatment of rubber and metal surfaces

▶ 50 g 10057199



### WEICON Urethane 85

#### Shore hardness: A 85

▶ 500 g ▶ 540 g 10057130 10057188



- ► Fast, cost-effective, contour and congruent repair
- ► No new purchase necessary



## Repair and coating of a steel platform





## Description:

- ► repair of the heavily corroded platform of an evaporation condenser
- ► sanding off the coarse rust
- ▶ neutralisation of the rusty surfaces with WEICON Rust Converter
- ► coating with the epoxy resin system WEICON Ceramic BL





## Advantages of our solution:

- easy application
- ► long-lasting protection against heavy stresses

### Rust Converter

▶ 400 ml 10047458 IMPA: 45 08 20



## Renewal of the anti-slip coating on a sailing yacht







## Description:

- ► sanding the surface
- ► cleaning with WEICON Cleaner Spray S
- ► applying WEICON GMK 2510 onto the prepared surface on deck as well as onto the underside of the new coating
- ► fixation of the new coating after 15 minutes flash-off time





### Cleaner Spray S

► 500 ml 10000147 IMPA: 45 08 01



### GMK 2510

► 324 g 10039649 IMPA: 81 52 39

► 690 g 10034480 IMPA: 81 52 40

Work Package (consisting of 300 g adhesive, 24 g bonding agent and wooden spatula) Work Package (consisting of 650 g adhesive, 40 g bonding agent and processing spatula)

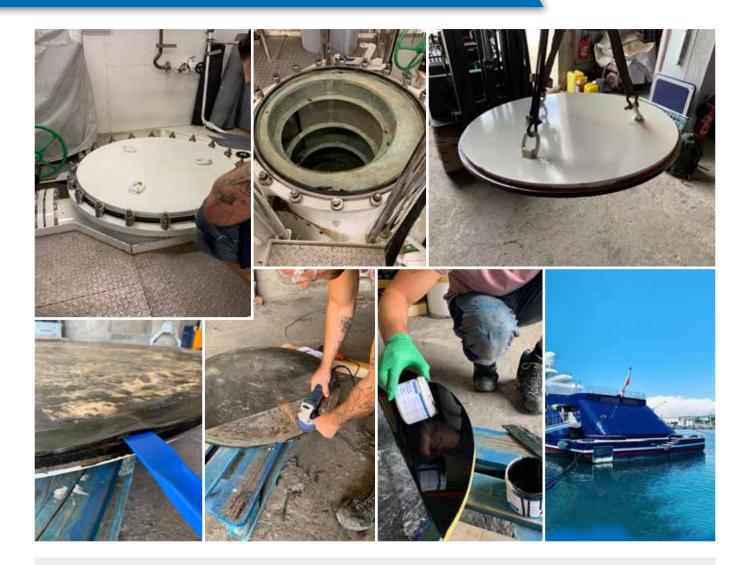




- ▶ very good adhesion of WEICON GMK 2510 to various materials
- ► fast and easy application
- ► deck can be walked on again immediately after attaching the new coatings
- ▶ permanent weather and ageing-resistant solution



## Repair of the end cover of a seawater filter on a yacht



## Description:

- ▶ repairing damages on the end covers, which had been caused by mounting errors
- ► cutting out and removing the damaged area
- ▶ additional roughening and sanding of material residues with an angle grinder
- ▶ enclosing the damaged area with a common tape
- ► cleaning the sanded surface with WEICON Cleaner Spray S
- ▶ even casting of the WEICON Urethane 80



## Advantages of our solution:

- ► fast on-site repair during ongoing use of the yacht
- ► high layer build-up and wear protection thanks to the self-levelling WEICON **Urethane 80**



Cleaner Spray S

► 500 ml 10000147 IMPA: 45 08 01

Shore hardness: A 80

▶ 500 g 10012368 IMPA: 81 29 63





## Repair of a rudder steering shaft on a deep-sea vessel









## Description:

- ▶ removal of the corrosion layer by grinding the rudder steering post
- ► cleaning the grinded steering post with WEICON Cleaner Spray S
- ▶ application of WEICON Ceramic BL to the steering post during permanent, slow rotation
- ► curing of WEICON Ceramic BL at slow rotation for eight hours



WEICON Ceramic BL

▶ 0,2 kg 10054394

▶ 0,5 kg 10000093 IMPA: 81 29 37

▶ 2,0 kg 10005233 IMPA: 81 29 38

▶ 500 ml 10000147 IMPA: 45 08 01



## Advantages of our solution:

- ► durable, substance-resistant coating to protect against corrosion
- ► uncomplicated, fast, economical repair of the rudder steering post

RN: **PS210** 



## Coating a pump housing



## Description:

- ► cleaning with WEICON Cleaner Spray S
- ► first application with WEICON GL as base coat and control layer
- ► second application with WEICON Ceramic BL as wear protection





- better adhesion of the wear protection layer WEICON Ceramic BL due to filling the pinholes with WEICON GL
- ► cost-effective repair
- ▶ no replacement of the component necessary



## Coating of jet pumps for sand backfill

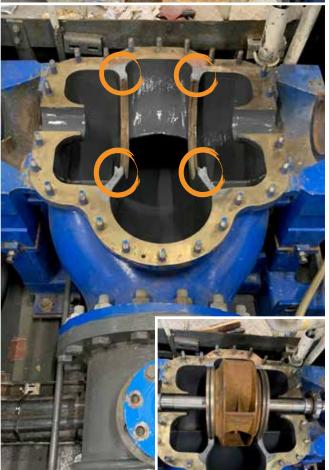




## Description:

- ► two jet pumps were coated with the epoxy resin system WEICON Ceramic HC 220
- ▶ the pumps are used to build artificial islands in the sea
- ► at the beginning, the contours were restored with Plastic Metal WEICON WR2







- ► increasing the conveyor rate
- ► short downtime and fast recommissioning
- ▶ very cost-effective repair and maintenance
- ► durable wear protection
- ▶ long service life despite sand-water mixture



## **Coating of ship propellers**



## Description:

- ▶ as part of the recertification, a total of six propellers on three ships were coated
- ▶ the propellers were coated with WEICON Ceramic BL to protect them from cavitation and epibiosis
- ▶ due to the technical properties of WEICON Ceramic BL, no imbalance occurs during propeller coating



### WEICON Ceramic BL

▶ 0,2 kg 10054394

▶ 0,5 kg 10000093 IMPA: 81 29 37

▶ 2,0 kg 10005233 IMPA: 81 29 38



## Advantages of our solution:

- ▶ avoidance of a cost-intensive replacement
- ► fast repair without long downtimes

### Cleaner Spray S

► 500 ml 10000147 IMPA: 45 08 01



## Repair of the fan housing of a ventilator







## Description:

- ▶ pre-treatment with sandblasting (SA 21/2)
- ▶ replacing the missing material surface by inserting a stainless steel sheet
- ► cleaning the entire surfaces to be coated with WEICON Cleaner Spray S
- ► sanding the stainless steel sheet to improve surface roughness
- application of WEICON A to build up basic coating on the inside and outside
- ▶ after curing: smoothing and sanding the excess material
- ► WEICON Cleaner Spray S
- ▶ application of WEICON Ceramic BL as finish
- ► for visual upgrading and as corrosion protection application of WEICON Rust Protection 2000 Plus





## Advantages of our solution:

► cost-effective repair and avoiding a replacement with long delivery times



## Repair of a bronze propeller shaft



## Description:

- ▶ propeller shaft had shrunk slightly by approx. 5 mm in the sealing area due to sediment build-up (stern tube)
- ▶ shaft was sanded down by 4 mm and by 200 mm in width
- ► cleaning with WEICON Cleaner Spray S
- ► creating a barrier by means of tape (3 mm)
- ► application of WEICON BR at slow rotation of the shaft
- ▶ slow rotation of the shaft during curing to prevent WEICON BR from dripping off
- ▶ sanding the shaft to size after curing
- ► finishing the shaft with fine abrasive cloth (approx. 0.2 mm)
- ► reinstalling the propeller shaft





## Advantages of our solution:

- ▶ avoidance of a cost-intensive replacement
- easy and time-saving repair
- ▶ good material compatibility and seawater resistance of WEICON BR

## Cleaner Spray S

▶ 500 ml 10000147 IMPA: 45 08 01

VIDEO





## Repair of a roller fender on a quay wall











## Description:

- ▶ damages on a roller fender on a quay wall
- ▶ application of WEICON Primer G
- ► filling the damaged areas with WEICON Urethane 85



### Urethane 85

#### Shore hardness: A 85

► 500 g 10057130 Work Package ► 540 g 10057188



## Advantages of our solution:

- ► fast and cost-effective repair solution
- ► excellent mechanical strength and elasticity
- ► durable wear protection

### Primer G

Special bonding agent for urethanes for the pre-treatment of rubber and metal surfaces

► 50 g 10057199

RN: **PS175** 



## Repair of a ship propeller







## Description:

- ► Roughening of the surfaces by sanding them
- ► Cleaning with WEICON Cleaner Spray S
- ► Application of the primer coat with WEICON BR
- ► Re-sanding and cleaning of the surface
- ► Application of the final coating with WEICON Ceramic BL



### Cleaner Spray S

▶ 500 ml 10000147 IMPA: 45 08 01



▶ 0,2 kg 10054386

▶ 0,5 kg 10012669

▶ 1,6 kg 10012670 IMPA: 81 29 10 IMPA: 81 29 11



#### WEICON Ceramic BL

▶ 0,2 kg 10054394

▶ 0,5 kg 10000093 IMPA: 81 29 37

▶ 2,0 kg 10005233 IMPA: 81 29 38



## Advantages of our solution:

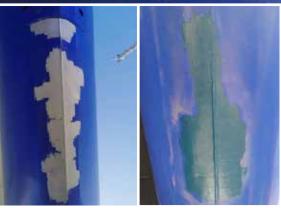
► Cheaper and faster than a new purchase



## Repair of a catamaran







## Description:

- ▶ sandblasting (SA 21/2) of the damaged areas
- ► application of WEICON HP
- ► final coating after curing with WEICON Ceramic BL
- ► 48 kg WEICON HP and 36 kg WEICON Ceramic BL were used on an area of 16 square metres



### WEICON HP

► 0,5 kg ► 2,0 kg 10054003 10054004



#### WEICON Ceramic BL

► 0,2 kg 10054394 ► 0,5 kg 10000093 IMPA: 81 29 37 ► 2,0 kg 10005233 IMPA: 81 29 38



- ► fast and precise repair
- ► reconditioning of the hull surface
- ► strengthening the material against new cavitation damages
- ▶ efficiency of the hull remains intact



## Coating of an intercooler in a ship engine



## Description:

- ➤ Severe corrosion of the condenser due to condensation caused by cooling compressed air in the turbocharger
- ▶ Loose rust was removed with a needle hammer
- ► The surface was cleaned with WEICON Cleaner Spray S
- ► WEICON Rust Converter was applied to stop existing corrosion
- ► A total of 10 kg of WEICON Ceramic BL was applied with a layer thickness of approx. 1 mm on an area of approx. 5 m²



#### Cleaner Spray S

► 500 ml 10000147 IMPA: 45 08 01



### Rust Converter

► 400 ml 10047458 IMPA: 45 08 20



▶ 0,2 kg 10054394

► 0,5 kg 10000093 IMPA: 81 29 37

► 2,0 kg 10005233 IMPA: 81 29 38



## Advantages of our solution:

► Restoration of spare parts that are no longer available



## Repair of several fenders/buffers at a port facility for cruise ships



















## Description:

- ▶ removing the loose rubber pieces
- ► cleaning with WEICON Cleaner Spray S
- ► roughening the damaged areas with sandpaper
- ▶ application of WEICON Primer G
- ▶ application of WEICON Urethane 85



Cleaner Spray S

► 500 ml 10000147 IMPA: 45 08 01



#### Shore hardness: A 85

► 500 g 10057130 Work Package ► 540 g 10057188 Cartridge



#### Primer G

special bonding agent for urethanes for the pre-treatment of rubber and metal surfaces

► 50 g 10057199



## Advantages of our solution:

- ▶ inner steel plate is protected from external influences by the repair
- ► prevention of corrosion



Dispenser 2C 10:1

recommended for the 2-component 540g cartridge

10057514



## Restoration work on a large submersible pump















## Description:

- ► Heavily eroded cast iron on pump
- ► Clean with WEICON Cleaner Spray S
- ► Apply WEICON Rust Converter
- ► Correct the largest damages with WEICON A
- ► After curing, coat with WEICON HB 300
- ► After curing of WEICON HB 300, coat with WEICON GL and finally with WEICON Ceramic BL
- ► The different colours of the two wear protection systems make wear of the coating clearly visible



#### Rust Converter

▶ 400 ml 10047458 IMPA: 45 08 20



▶ 0,2 kg 10054381

▶ 0,5 kg 10000003

▶ 2,0 kg 10000006 IMPA: 81 29 01 IMPA: 81 29 02







10004472

▶ 0,5 kg 10001084

▶ 1,0 kg 10000099 IMPA: 81 29 51

### Cleaner Spray S

▶ 500 ml 10000147 IMPA: 45 08 01



▶ 0,2 kg

▶ 0,5 kg

▶ 1.0 kg 10057791 10057714 10057800



#### WEICON Ceramic BL

▶ 0,2 kg 10054394

▶ 0,5 kg 10000093 IMPA: 81 29 37

▶ 2,0 kg 10005233 IMPA: 81 29 38



- ► Function of the pump restored
- ► No new purchase necessary



## Repair of a drive shaft

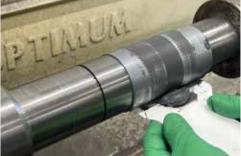












## Description:

- ► reducing the drive shaft to an undersize of > 3 mm
- ► creating a barrier (tape) to remove access material in uncured state
- ► circumferential application of WEICON HB 300 in a layer thickness of approx. > 5 mm
- ▶ after curing (24 h), the repaired area is reduced to the desired size



▶ 0,2 kg 10004472

▶ 0,5 kg 10001084

▶ 1,0 kg 10000099 IMPA: 81 29 51

VIDE0





- Advantages of our solution: ► fast and cost-effective repair
- ► avoiding long delivery times
- ► fast recommissioning of the system
- ► cost savings of approx. 8,000 EUR compared to a replacement









