# **Shipbuilding technologies**

**EPOCAST** epoxy chocking and paste systems **Devcon® CELLOFLEX-M** shaft coating system



## Long lasting and proven solutions ...

# State of the art technology combined with long tradition and 40 years of experience

#### **ITW Polymers Europe GmbH**

The former company H. A. SPRINGER GmbH, now ITW Polymers Europe GmbH established in Kiel in 1972, is a highly specialized and efficient enterprise in the marine & offshore field.

ITW Polymers Europe GmbH are the resin chocking specialists when it comes to foundations for engines and machinery of all types and sizes.

Through a worldwide network of agencies and service stations the company guarantees its customers an unequalled standard of advice and service.

#### 80/20 working philosophy

Our 80/20 working philosophy guides us always to the best results. This process improves quality, productivity, delivery, innovation, market penetration and ultimately customer satisfaction.

#### **Cost-effective engineered solutions**

Project-oriented advice on potential applications of our products offers the customer the most cost-effective engineered solution.





### Chemicals of the future

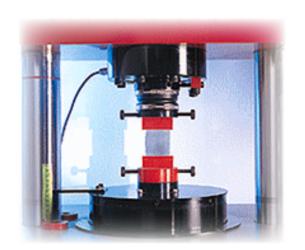
Thanks to innovative research and the latest technologies we have succeeded in replacing conventional materials with chemical materials in many engineering applications.

#### **EPOCAST**

EPOCAST is the brand name of our range of resin chocking systems based on two-component Epoxy and PUR materials, which are in use throughout the world. Approved and recognised by all major Classification Societies and engine manufacturers in Germany and abroad, EPOCAST 36® is one of the most widely used chocking and grounting systems.

We attach the utmost importance to quality assurance which demands a consistently high standard of qualified personnel, state-of-the-art testing technology and permanent production controls, and continuous monitoring of incoming and outgoing goods.

Thanks to their versatility and potential uses, our products are constantly proving themselves in new fields and offer a high degree of reliability in all situations.





#### Quality assurance

ITW Polymers Europe GmbH embraces the challenge of finding new ways to improve quality and productivity. Ever since the establishment of the former H. A. SPRIN-GER GmbH nowadays ITW Polymers Europe GmbH, production, service, goods received and product dispatch have been monitored by an internal quality assurance system.

To keep pace with the worldwide demands for a high level of quality assurance, ITW Polymers Europe GmbH decided to implement DIN ISO 9001 with certification by Lloyd´s Register Quality Assurance. Final approval was granted to the company since April 1995. In February 2010 the existing quality system was re-certified according ISO 9001:2008.

## **EPOCAST PRODUCTS**

## **EPOCAST 36®**

Specific use in shipbuilding and offshore

EPOCAST 36® is a two-component pourable chocking compound with excellent physical characteristics replacing the conventional method of steel chocks when used for mounting main and auxiliary engines, gear boxes, steering gears, thrust bearings, stern tubes, etc.



EPOCAST 36® is the suitable replacement of steel chocks for chocking / installation of:

- Main / aux. engines
- > Pod propulsion systems
- Gear boxes
- Generators
- Deck machineries
- Steering gears
- > Sterntube / shaft bushes / rudder bearings
- Tanks
- Crane rails

and many more

EPOCAST 36® resin chocking compound, unlike the conventional method, is easy to use and therefore offers a most cost-effective alternative for machineries under service temperatures up to 80°C and maximum surface load of 5N/mm².

EPOCAST 36® chocks are not only econimical to fit but offer additional benefits such as their ability to fill any reasonable irregularity in the chocking interface and to reduce noise and vibration.



#### Features:

- ➤ Simple use
- No machining of foundation
- ➤ Compensates uneven foundations
- Up to 80 mm chock thickness can be poured depending on ambient temperature
- > High compressive and impact strength
- ➤ Chemical resistant
- > Reduces noise and vibrations
- Viscosity can be adjusted by pre-heating of resin compound
- Saves weight
- ➤ Nearly 100 % of the force lines are leaded to the base

### **EPOCAST 36-P**

EPOCAST 36-P is a trowelable two-component epoxy paste which was specifically developed for installation of LNG/LPG tanks, chemical tanks and containment systems.

EPOCAST 36-P is a further development of the worldwide proven chocking system EPOCAST 36® and is everywhere in application where it is not practical to use a freely floating resin. EPOCAST 36-P can be heavily loaded and has good adhesive properties even at extremely low temperatures.

EPOCAST 36-P is among many other application possibilities the perfect choice for installation of LNG / LPG tanks.

#### **Features**

- Simple use
- No machining of foundations
- > Compensates uneven foundations
- Compensates constructional tolerances
- ➤ Long processing time (long pot life)
- High impact and compressive strengthChemical resistant
- > For tanks up to extremely low service temperatures
- Weight saving
- Nearly 100 % of the force lines are leaded to the base
- ➤ No mould construction required



### **EPOCAST F**

EPOCAST F is a two-component resin system enriched with high-grade fillers. It is designed for use wherever there is a need to join different components and ensure a permanently flexible seal.

Low heat production during the curing process even under high chock conditions, and smooth, pore-free surfaces are the outstanding features of this product.

#### Features:

- ➤ Simple use
- Low viscosity
- Long pot life
- ➤ Low exotherm reaction temperature
- Extraordinary smooth surface after curing even in high humid ambient atmosphere
- ➤ Protection against splash water (e.g. in combination with EPOCAST 36®)



## **Devcon® CELLOFLEX-M**

#### Devcon® CELLOFLEX-M

Devcon® CELLOFLEX-M is a coating system which avoids corrosion damages to propeller -/ sterntube shafts and couplings exposed to seawater.

Devcon® CELLOFLEX-M is a further development of our experienced and well tried and tested shaft coating system CELLOFLEX which has been proven in service thousands of times at navies worldwide (Germany, Greece, Argentina, Turkey, Venezuela, Korea, Indonesia, Netherlands, Spain, Portugal, Norway and many more).

Devcon® CELLOFLEX-M is approved by the German Navy and the classification societies ABS, RMRS and LR. Further approvals are in progress.

Our shaft coating system finds it's use at following types of vessels:

- Navy vessels
- ➤ Police and coast guard boats
- > Research vessels
- Ice breakers
- Yachts

#### **Shafts protection**

The Devcon® CELLOFLEX-M shaft coating products are easy to handle and no special turning of shafts is required. Devcon® CELLOFLEX-M can be applied when the ship is drydocked without the necessity of removing the shafts. Repairs can also be carried out easily during drydocking.



Quelle: PIZ Marine, Germany



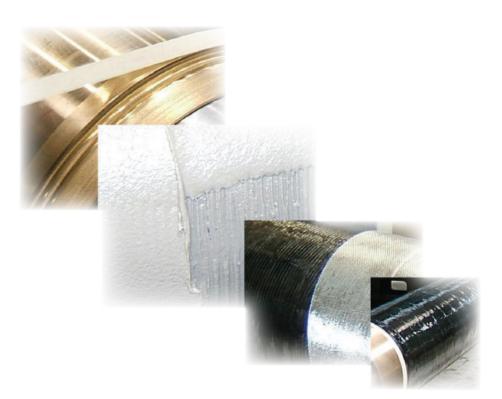
Quelle: PIZ Marine, Germany

# Devcon® CELLOFLEX-M shaft coating system is a cost-effective and highly qualified method

#### Features:

- Epoxy based materials
- Protection against corrosion
- Excellent accommodation to torsion and vibration stress of shaft
- > Excellent adhesive strength
- 2-layer system protects against damages from seawater obstacles
- Non-polluting
- No removing of shaft in drydock
- ➤ No need of turning shaft
- No grinding of the various layers of the Devcon® CELLOFLEX-M shaft coating (The different layers do interconnect)
- ➤ Easy repair (even in combination with previous CELLOFLEX material)





Devcon® CELLOFLEX-M shaft coating system is a costeffective and highly qualified method to protect shafts made of black steel.

It is the ultimate and most cost saving alternative to the use of stainless steel shafts.

## **Distributors worldwide**



# Customer Service Whenever and wherever you need it!

## **TW** Polymers Europe

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