



# TIBCHEMICALS

## PROTEGOL® EPN Coating 180 two-component liquid epoxy coating

### Description

PROTEGOL® EPN Coating 180 is a two-component liquid epoxy coating. The product meets the requirements of DIN EN 10289:02.2002. Application is made by 2K airless hot spray system.

### Uses

Exterior and interior coating for new and refurbished structures

- Pipes, bends
- Fittings
- Weldings
- Tanks, containers
- for gases, water, hydrocarbons and slurries.

### Benefits

- Excellent anti-corrosion protection
- Abrasion and impact-resistant
- High temperature resistance

### Referenced Standards

**DIN EN 10289:02.2002** Steel tubes and fittings for onshore and offshore pipelines - External liquid applied epoxy and epoxy-modified coatings; German version EN 10289:2002

### Product data

The following data has been obtained at +23°C unless otherwise stated:

Type	epoxide
Component A (Base)	epoxide
Component B (Hardener)	amine

Physical state	
Component A	viscous
Component B	liquid

Viscosity	
Comp. A at 60 °C	740 mPa*s
Comp. B at 60 °C	400 mPa*s

Density (g/cm <sup>3</sup> )	
Comp. A	1,60
Comp. B	1,40
Comp. A + B	1,53

Mixing ratio Comp A : Comp B	
Gravimetric	70:30
Volumetric	2,0:1,0

### Coating properties

Recommended dry film thickness	≥800 μm
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Actual required DFT may vary in certain applications, please contact us for technical clarification.

Service temperature	-20 °C to 180 °C
Short term temperature load without temperature gradient to the substrate	200 °C

Minimum surface temperature	10 °C
min. +3°C above dew point	

Processing temperature	
Component A	50 °C to 80 °C
Component B	50 °C to 80 °C

Max. rel air humidity	80 %
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Potlife at 60 °C	10 min
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#### Coating properties according to DIN EN 10290:2002/10289:2002 (typical values)

Hardness Shore D (±5)	85
according DIN EN ISO 686 (1 sec)	
Hardness Shore D (±5)	85

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according DIN EN ISO 686 (15 sec.)

Impact resistance (max. impact energy)	6 J/mm
Adhesion to steel	16 MPa
Cathodic disbondment after 28 d at 23 °C	2,80 mm
Specific electrical insulation resistance after 100 d at 23 °C	5*10 <sup>10</sup> Ωm <sup>2</sup>
Thermal aging, adhesion ( 100 d)	9 MPa (100° C)

### Coating properties according to other standards (typical values)

Adhesion to FBE (internal test)	>23 MPa
Adhesion to FBE (28-day hot water soak; internal test) (80° C)	>23 MPa
Cathodic disbondment (28 d) CSA Z245.20-18 (95° C)	4,8 mm
Cathodic disbondment (28 d) CSA Z245.20-18 (150° C)	10,8 mm
Cathodic disbondment (28 d) CSA Z245.20-18 (180° C)	11,2 mm
Cleaning agent	Solvent G

### Colours

#### Grey

Other colours on request (subject to technical feasibility and minimum order quantities)

### Coverage, theoretical

Approx. 1,53 kg/m<sup>2</sup> at 1.000 µm DFT and not considering excess consumption.

### Packing

Component A	Component B
barrel 300,00 kg	barrel 250,00 kg
hobcock 30,00 kg	hobcock 30,00 kg

### Shipping and Storage Regulations, Application, Health and Safety

#### Storage:

In a cool and dry place shelf life is approx. 12 months in tightly closed original packs.

#### Maintenance of tools:

Immediately after use, all tools should be cleaned with Solvent G.

Refer to our general work instructions for PROTEGOL® Coatings.

Refer to our safety data sheets prior to use.

Carefully read and follow all safety instructions on labels and packaging. Handle and store material with care in accordance with the safety data sheets. Follow and observe any applicable local or national laws and regulations.

Regulations regarding explosion protection with regard to the construction and equipment of facilities (machines) can be found, among other sources, in the corresponding harmonized European standard (BS EN 16985:2018-12-14 "Spray booths for organic coating material - Safety requirements" (former DIN EN 12215 and DIN EN 13355)); furthermore, local laws and/or regulations must be observed.

Contact us to make sure you have the latest version of safety data sheet, technical data sheet and work instruction at hand.

#### Important Notice:

The information on the properties of the product components represent average values that correspond to our defined quality specifications. Our products are manufactured and controlled in accordance with strict quality management and quality control requirements, which are subject to ISO 9001: 2015 certification. Information on the default values defined by us are given in the acceptance test certificates. The product properties marked as "typical values" are taken from the test reports of external institutes, unless otherwise stated.

The information in our documents in printed or electronic form is based on our knowledge and experience. Due to numerous possible influences in the processing and application of our products, our statements do not release the processor from the responsibility to test the goods for their own procedures and purposes; Legally binding assurance of certain properties or suitability for a specific application cannot be derived from our information. It is the responsibility of the recipient of our products to observe any property rights as well as existing laws and regulations.

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