



TIBCHEMICALS

PROTEGOL® UR Coating 32-45 two-component polyurethane coating

Description

PROTEGOL® UR Coating 32-45 is a two-component polyurethane coating. The product meets the requirements of DIN EN 10290:2002, AWWA C222-99, UBA Guideline (UBA Leitlinie). Application is made by 2K airless hot spray system.

Uses

Internal and external coating of

- Pipes, pipe bends
- Fittings
- Tanks, containers
- Piling pipes

Benefits

- Good corrosion protection
- Certified acc. to UBA Guideline
- Certified acc. to DVGW W270, microbiological expertise
- Abrasion-resistant and impact-resistant
- Good chemical resistance

Referenced standards

DIN EN 10290:2002 Steel tubes and fittings for onshore and offshore pipelines - External liquid applied polyurethane and polyurethane-modified coatings

AWWA C222-99 AWWA Standard for Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings

UBA Leitlinie Guideline for hygienic assessment of organic coatings in contact with drinking water for pipes >DN300, containers, equipment

DVGW W 270, 11.1999 Microbial Enhancement on Materials to Come into Contact with Drinking Water - Testing and Assessment

Real Decreto 118/2003 Real Decreto 118/2003, de 31 de enero, por el que se aprueba la lista de sustancias permitidas para la fabricación de materiales y objetos plásticos destinados a entrar en contacto con los alimentos y se regulan determinadas condiciones de ensayo.

Product data

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

Type	polyurethane
Component A (base)	polyol
Component B (hardener)	isocyanate

Physical state:

Component A	pasty
Component B	pasty

Viscosity

Comp. A at 50 °C	2600 mPa*s
Comp. B at 25 °C	200 mPa*s

Density (g/cm³)

Comp. A	1,49
Comp. B	1,24
Comp. A + B	1,43

Mixing Ratio Comp A : Comp B

Gravimetric	78,5:21,5
Volumetric	3,0:1,0

Coating properties

Recommended dry film thickness (DFT) ≥1500 µm

Actual required DFT may vary in certain applications, please contact us for technical clarification.

Overcoating period, min. 3 min

Service temperature -20 °C to 80 °C

Short term temperature load without temperature gradient to the substrate 110 °C

T min substrate 10 °C

min. +3°C above dew point

Processing temperature

Component A 50 °C / 80 °C

Component B 20 °C / 50 °C

Max. relative air humidity 80 %

Potlife at 60 °C 30 sec.

Hardness Shore D (±5) 70 ±5

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Impact resistance (max. impact energy)	11 J/mm
Adhesion to steel, pull off test	17 MPa
Cathodic disbondment after 28 d at 23 °C	3,70 mm
Specific electrical insulation resistance after 100 d at 23 °C	1x10 ⁹ Ωm ²
Thermal aging, adhesion, pull off test after 100 d at 100 °C	20 MPa
Flexural strength	Req. fulfilled
Elongation at break [%]	16
Cleaning agent	Solvent B, G
Repair material	
PROTEGOL PU Repair Material, PROTEGOL UR Coating 32-45/55L	

Colours

RAL 5005 - Signal blue
RAL 7000 - Squirrel grey
Other colours on request (subject to technical feasibility and minimum order quantities)

Coverage, theoretical

Approx. 1,43 kg/m² at 1.000 µm DFT and not considering excess consumption.

Packaging

Component A	Component B
barrel 300,00 kg	barrel 250,00 kg
hobcock 30,00 kg	hobcock 25,00 kg

Shipping and Storage Regulations, Application, Health and Safety

Storage:

In a cool and dry place shelf life is approx. 24 months in tightly closed original packs.

Maintenance of tools:

Immediately after use, all tools should be cleaned

with Solvent B, 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 to 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 (DIN EN 16985 "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.

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