



TIBCHEMICALS

PROTEGOL® UR Coating 32-55 PN two-component polyurethane coating

Description

PROTEGOL® UR Coating 32-55 PN is a two-component polyurethane coating. The product meets the requirements of ISO 21809-3:2016. Application is made by 2K airless hot spray system. PROTEGOL® UR Coating 32-55 PN has a high resistance against cathodic disbonding even at higher temperatures.

Uses

Coating of

- Field joints

Benefits

- Excellent corrosion protection
- High resistance against cathodic disbonding up to 80 °C
- Abrasion-resistant and impact-resistant
- High temperature resistance
- Good adhesion to steel

Referenced standards

ISO 21809-3:2016 Petroleum and natural gas industries - External coatings for buried or submerged pipelines used in pipeline transportation systems - Part 3: Field joint coatings

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	liquid

Viscosity	
Comp. A at 50 °C	2000 mPa*s
Comp. B at 25 °C	200 mPa*s

Density (g/cm ³)	
Comp. A	1,58
Comp. B	1,24
Comp. A + B	1,48

Mixing Ratio Comp A : Comp B	
Gravimetric	75:25
Volumetric	2,3:1,0

Coating properties

Recommended dry film thickness (DFT) ≥1500 µm

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

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 to 70 °C
Component B	20 °C to 40 °C
Max. relative air humidity	80 %
Potlife at 60 °C	30 sec
Hardness Shore D	75 ±5

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Impact resistance (max. impact energy)	13 J/mm
Adhesion to steel, pull off test	11,9 MPa
Cathodic disbondment after 28 d at 80 °C	5,40 mm
Specific electrical insulation resistance after 100 d at 23 °C	2,6*10 ⁹ Ωm ²
Cleaning agent	Solvent B, G
Repair material	
PROTEGOL® PU Repair,	
PROTEGOL® UR Coating 32-55 PN M/L,	
PROTEGOL® UR Coating 32-45/55 L (Cartridge),	
PROTEGOL® UR Coating 32-60 (Cartridge)	

Colours

RAL 6029 - Mint green

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

Coverage, theoretical

Approx. 1,48 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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