



Corrosion Protection Systems

PROTEGOL® UR Coating 32-55 / 45 L

Solvent-free, trowel-applied two-component polyurethane coating compound

Description

PROTEGOL® UR Coating 32-55 / 45 L is a solvent-free two-component polyurethane coating compound.

After mixing, the material can be trowelled or, if necessary, brush-applied.

Uses

- Supplementary product to PROTEGOL® UR Coating 32-55 / 45 for manual application
- Repair of defective areas and mechanical damages
- Pre-trowelling of parts with complicated design and subsequent over-coating by airless hot spray-method
- Coating of welded field joints on factory-coated steel pipes

Benefits

- Good corrosion protection
- Abrasion resistant
- Impact resistant
- High chemical resistance

Product Data

The following data have been determined at +20°C unless otherwise stated:

Type	Internally plasticized two-component material
Base	PUR
Solvents	None
Volume solids	100 %
Consistency	
Comp. A	Pasty
Comp. B	Viscous

Density	
Comp. A	1.83 g/cm ³
Comp. B	1.25 g/cm ³
Comp. A + B	1.70 g/cm ³
Mixing ratio comp. A : B	5 : 1 parts by weight
Application method	By spatula, brushing if necessary
Application thickness	500 µm to 1,000 µm for operation on vertical surface
Application temperature	Substrate between 10°C and 30°C Material between 15°C and 25°C
Pot life	Approx. 20 min.
Waiting periods between applications	Minimum 1 hour; previous coating should still be slightly tacky
Curing time	
Touch dry	After approx. 3 hours
Stackable	After approx. 12 hours
Full mechanical and chemical load	After one week
Temperature limits without simultaneous mechanical stress	-30°C to +80°C, up to +110°C for short-term periods (without temperature gradient to the substrate)
Shore D acc. to DIN 53 505	75 ± 5 *
Cleaning material	Solvent B or G

* After the coating has fully reacted and cured

Colours

Light ivory	approx. RAL 1015
Capri blue	approx. RAL 5019
Reseda green	approx. RAL 6011
Feh grey	approx. RAL 7000
Achat grey	approx. RAL 7038
Graphite black	approx. RAL 9011
Other colours available on request.	

Coverage

Approx. 1.7 kg / 1,000 µm dft. / m² (theoretical value)

Date of issue 12/2012

TIB Chemicals AG | Muelheimer Strasse 16 -22 | 68219 Mannheim | P. O. Box 81 02 20 | 68202 Mannheim | Germany
Phone +49 621 8901-812 | Fax +49 621 8901-902 | info.protegol@tib-chemicals.com | www.tib-chemicals.com

*This information is given to the best of our knowledge but without obligation. We are not liable for any wrong advice or any advice we may have failed to give.
This data sheet becomes invalid as soon as a new edition has been published. Please contact us for latest.*





Corrosion Protection Systems

PROTEGOL® UR Coating 32-55 / 45 L

Solvent-free, trowel-applied two-component polyurethane coating compound

Packaging

- 2 kg double packs (24 x 2 kg per carton)
- 0.5 kg double packs (68 x 0.5 kg per carton)

Storage

In a cool and dry place, approx. 24 months in tightly closed original packs.

Before material withdrawal, the component A has to be mixed thoroughly.

When stored below 0°C, component B may partly crystallize. In this case warm up to approx. 25°C in an oven or by oil bath in order to re-dissolve the crystals. (Do not use water bath as component B is sensitive to moisture!) Component B with crystals should on no account be used since the presence of crystals interferes with the curing process.

Storage and Transport Data

PROTEGOL® UR Coating 32-55 / 45 L

	Flash point	RID/ADR	ICAO/IATA-DGR
Comp. A	> 100°C		
Comp. B	220°C		
Solvent B	approx. 28°C	cl. 3/fig. 31 c	cl. 3/ UN 1263/ III
Solvent G	approx. 7°C	cl. 3/fig. 5 b	cl. 3/UN 1263/III

Application

Substrate

The steel surfaces to be coated must be dry, clean and free from dust, have a good key and be free from all matter acting as release agents (e.g. oil, grease, old paint). In order to obtain the necessary conditions, suitable substrate preparation methods such as blasting must be used.

Steel surfaces must be abrasive blast clean to near white (degree of cleanliness according to DIN EN ISO 12944-4 at least Sa 2 ½ or SSPC – SP3 or ISO 8501/p 5T 2/3). The first coating must be applied immediately after blast cleaning. Later application of

the base coat is only permissible if the original degree of cleanliness has been maintained.

The constructional design of steel and iron shall comply with DIN EN 14879 part 1. The surface profile shall range between 50 µm and 70 µm. The blasting material shall be angled-shot.

Coating

Ensure that the temperature of the substrate is at least 3°C above the dew point to avoid condensation. The dew point can be determined with a suitable dew point mirror.

Thoroughly mix both components at the indicated mixing ratio with a slow-speed stirrer (e.g. a drill fitted with a stirring paddle running at approx. 400 rpm) or manually. Care should be taken to mix in the material sticking to the walls of the container. Therefore, transfer the mixture to a larger, clean vessel all material sticking to the walls of the original vessel being scraped off with a palette knife and being added with renewed stirring. Once PROTEGOL® UR Coating 32-55 / 45 L is mixed it may be applied by trowel or by brush if applicable.

In order to repair defective areas in a PROTEGOL® UR Coating 32-55 / 45 coating, the repair area shall be roughened. When circular welding seams are to be coated, PROTEGOL® UR Coating 32-55 / 45 L is applied by brush if applicable or by trowel in several operations until the thickness of the factory-applied coating has been reached.

High voltage holiday tests can be carried out after approx. 5 hours. The tension may be up to 10,000 V/ 1,000 µm coating thickness. The high voltage holiday test can only be carried out if the material has been applied without any air trapping. Therefore it is advisable to take this into consideration already during the mixing process.

Relative humidity during application of the coating must be <80%. (In case of higher relative humidity ask for our special technical advice.)

Date of issue 12/2012

TIB Chemicals AG | Muelheimer Strasse 16 -22 | 68219 Mannheim | P. O. Box 81 02 20 | 68202 Mannheim | Germany
Phone +49 621 8901-812 | Fax +49 621 8901-902 | info.protegol@tib-chemicals.com | www.tib-chemicals.com

*This information is given to the best of our knowledge but without obligation. We are not liable for any wrong advice or any advice we may have failed to give.
This data sheet becomes invalid as soon as a new edition has been published. Please contact us for latest.*





Corrosion Protection Systems

PROTEGOL® UR Coating 32-55 / 45 L

Solvent-free, trowel-applied two-component polyurethane coating compound

Waiting periods

The waiting period between applications is approx. one hour at 20°C; the previous coating should still be slightly tacky. The seams of cured coating areas shall be roughened to provide good adhesion.

According to the regulations on dangerous substances, component B of PROTEGOL® UR Coating 32-55 / 45 L as well as Solvents B and G are liable to danger identification.

Maintenance of tools

Immediately after use all instruments should be cleaned with Solvent B or G.

Health and Safety

Although PROTEGOL® UR Coating 32-55 / 45 L is solvent-free, it may, if processed at elevated temperatures, develop vapors and aerosols which may cause irritation to the respiratory tract and the skin. It must be ensured by suitable measures, such as continuous ventilation, mechanical extraction or respiratory protection that such vapors and atomized spray are not inhaled. Therefore we recommend wearing filter or fresh air masks.

In closed spaces assure proper and adequate ventilation as well as breathing protection. Hazard warnings and security instructions on the labels must be followed.

The unprotected skin should not be allowed to come in contact neither with component A nor B. If any of the material has accidentally splashed onto the skin, the affected area should be immediately washed thoroughly with warm soapy water or better with warm non-alkaline cleaners (e.g. Lutrol E 400, BASF). Clean again thoroughly with soap and water.

When using PROTEGOL® UR Coating 32-55 / 45 L all safety precautions applicable to handling polyurethane resins and their hardeners must be observed. They are listed in the "Merkblatt für den Umgang mit Isozyanaten" (Instructions for handling isocyanates), ed. October 1987, which is available on request. In addition, the health and safety precautions mentioned on the material safety data sheets as well as any regulations valid in the respective country should be observed.

Date of issue 12/2012

TIB Chemicals AG | Muelheimer Strasse 16 -22 | 68219 Mannheim | P. O. Box 81 02 20 | 68202 Mannheim | Germany
Phone +49 621 8901-812 | Fax +49 621 8901-902 | info.protegol@tib-chemicals.com | www.tib-chemicals.com

*This information is given to the best of our knowledge but without obligation. We are not liable for any wrong advice or any advice we may have failed to give.
This data sheet becomes invalid as soon as a new edition has been published. Please contact us for latest.*

