

PRODUCT INFORMATION

REMACOAT D-40

PRODUCT DESCRIPTION

REMACOAT D-40 is a cold curing two-component coating system based on polyurea. Both two highly reactive fluid components react at ambient temperature within few seconds and form a highly elastic material. **REMACOAT D-40** can bridge cracks up to 0.5 mm.

COATING LAYERS CONSUMPTION

The coating system consists of the primer **REMACOAT PR 100** and the two highly reactive fluid components **REMACOAT D-40 ISO** and **REMACOAT D-40 POLY**. The total applied DFT is based on the present chemical, thermal and mechanical load.

POLYMER TYPE

Comp.	Polymer Type	Colour
ISO	Diphenylmethane diisocyanate (isomers and homologues)	Honey, transparent
POLY	Mixture of polyoxyalkylamines	Gray, available in different colours

FIELDS OF APPLICATION

Due its special characteristics, **REMACOAT D-40** is used nearly in almost all industrial and trade sectors as a multifunctional surface protection. Typical fields of applications are lining of:

- Sewage lagoons and ponds coatings
- Reefers as well as cold storage rooms
- Washing and cleaning stations
- Tank pit coatings
- Coating of oil pipelines
- Marine offshore platforms
- Desalination plants
- Neutralization basin
- Lining of wastewater systems
- Storage ponds in waste incineration plants

FEATURES

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Substrates are components made of steel, concrete, screed or plaster. Components to be coated shall be designed and manufactured in accordance with EN 14879-1. For components made of concrete, screed or plaster DIN 1045 must also be observed.

SURFACE PRE-TREATMENT

Surfaces to be coated must be clean, dry and free of contaminants. All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN TR 55684 and EN ISO 8502.

Non-alloyed steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ (SSPC-SP 10; NACE No. 2) as specified in EN ISO 8501-1 and a "medium (G)" roughness

degree as specified in EN ISO 8503-2 must be achieved. A minimum surface profile of $R_z \geq 70 \mu\text{m}$ is required.

To prevent flash rust, the primer must be applied immediately after the blasting and cleaning of the substrate or the component must be air conditioned to a relative humidity of $\leq 40\%$.

CONCRETE

Appropriate action shall be taken to prepare the concrete surfaces; dry and free of dust and free of contaminants such as oil or grease. The concrete shall have minimum tensile strength of 1.5 N/mm² and minimum compressive strength of 25 N/mm². The residual moisture content must not exceed 4%.

ENVIRONMENTAL CONDITIONS

Throughout the coating process, the temperatures of the substrate and coating materials shall be maintained within the range specified by TIP TOP. All surfaces shall be maintained at a temperature at least 3K above the dew point in order to prevent condensation.

Environmental Conditions	Value
Max. Air Humidity	$\leq 98\%$
Application Temperature	-10°C up to +50°C
Dew Point Distance	5 K, Minimum 3K

APPLICATION

During the application of the product, the application instruction must always be observed.

The primer **REMACOAT PR 100** is applied to the substrate using an airless air spray system or by rolling or brushing. **REMACOAT PR 100** must be non-sticky prior to over coating. The two liquid components **REMACOAT D-40 ISO** and **REMACOAT D-40 POLY** are applied onto the primed surface using a 2K high-pressure airless air spray system.

REMACOAT D-40 POLY must be well stirred prior to application.

MIXING RATIO

Coating	Parts by Weight	Parts by Volume
REMACOAT D-40 POLY	100	100
REMACOAT D-40 ISO	94	100

APPLICATION NOTES

Note	Value
Gel Time	ca. 2 - 4 sec.
Tack-free Time	ca. 6 - 8 sec.
Preheat	+25°C up to +30°C
Application Temperature	ISO: +75°C / POLY: +80°C
Over Coating Time	- up to 10h directly possible/ - 10h up to 48h refresh with REMACOAT PR 100 / - after 48h roughen surface + REMACOAT PR 100



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CLEANING

Clean all equipment immediately after use. The spray gun should be cleaned with acetone, MEK (methyl ethyl ketone) or DMF (Dimethylformamide). The machine, pump and hoses should be cleaned with Mesamoll or DOP (Diocetyl phthalate).

SAFETY MEASURES

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
REMACOAT PR 100	0.8 kg	590 2835
REMACOAT PR 100	4 kg	590 2842
REMACOAT PR 100	20 kg	590 2859
REMACOAT D-40 ISO	20 kg	590 2866
REMACOAT D-40 ISO	224 kg	590 2897
REMACOAT D-40 POLY GRAY	20 kg	590 2873
REMACOAT D-40 POLY GRAY	230 kg	590 2907
REMACOAT D-40 POLY COLOURLESS	230 kg	590 2909

STORAGE

The products must be stored in a cool and dry place, away from direct sunlight. At the specified storage temperatures a shelf life of the products is given of at least for the following periods:

Product	Temperature	Shelf Life
REMACOAT D-40 ISO	10 - 30°C	12 Months
REMACOAT D-40 POLY GRAY / COLOURLESS	10 - 30°C	12 Months
REMACOAT PR 100	10 - 30°C	12 Months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof. In addition, the DIN 7716 must be observed.

Technical Data	Standard	Unit	Value
Abrasion (Volume Abrasion)	DIN ISO 4649	mm ³	< 200
Density	EN ISO 2811 (ASTM D1475)		ISO: 1.12 ± 0.02 / POLY: 1.04 ± 0.02 / Mixture: 1.19 ± 0.02
Hardness Shore D	ISO 868	-	45 ± 5
Surface Resistivity	IEC 60167	Ω	≥ 1.0 x 10 ¹¹
Elongation at Break	ISO 37	%	≥ 200
Tensile Strength	ISO 37	N/mm ²	≥ 15
Resilience	ISO 4462 (DIN 53512)	%	≥ 30
Peel Strength Concrete / Steel	DIN 53531	N/mm	≥ 5 / ≥ 10
Water Vapour Permeability	DIN 53122	g/m ² .d	6 ± 1*
Max. Operating Temperature Liquids	-	°C	+50
Max. Operating Temperature Dry	-	°C	+130
Short-Term Operating Temperature Dry	-	°C	+150

* Coating Thickness 4 mm at 38°C

Note: Final properties are reached after 5-7 days. The technological values were determined after 28 days of conditioning at ambient conditions. (T = 23 ± 2°C; humidity = 40 – 60%)

Information given in the fact sheet above corresponds to the current knowledge available to us regarding our products at the time of its drafting and is intended as a guideline for informational purposes. However, because of the multiple possibilities regarding possible applications, processing and on site conditions, any information given in the fact sheet above is not legally binding, in particular, without being limited to, such information shall not be interpreted as a warranty of merchantability or of fitness for a particular purpose. Customer therefore is advised to conduct its own testing or make an inquiry with our technical department before ordering. We reserve the right to change the product at any time, in particular, without being limited to, minor changes because of advancements in technology. If by way of exception, the information given in the fact sheet above is incorporated by reference into any contract concluded with us under German Law, such information, shall only be interpreted as determining the specific requirements of the contractual products as set out in § 434 BGB (German Civil Code) and shall not be interpreted as constituting a guarantee of condition.

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