

PRODUCT INFORMATION - REMACOAT D-40

General properties:

REMACOAT D-40 is a cold curing 2-component coating system based on polyurea. The two highly reactive liquid components with the name **REMACOAT D-40 ISO** and **REMACOAT D-40 POLY** are mixed together through high pressure spraying – and become an elastic material within a few seconds, at ambient temperature.

On account of the high reactivity of the two liquid components, a post curing process with hot air or steam in an autoclave is not necessary. However, it is possible to accelerate the cross-linking process by post curing with hot air.

Chemical resistance (wet):

The outstanding feature of the coating system **REMACOAT D-40** is its resistance against a multitude of chemicals, particularly diluted acids (inorganic or organic ones), alkaline solutions, oils of different kinds and aqueous phases.

The above mentioned material can be applied up to a temperature of +50 °C (Wet stress)

General Approval of German Institute for Construction Technology (DIBT):

The coating material **REMACOAT D-40** is approved by the German Institute for Construction Technology (DIBT) as an organic surface protection for concrete in storage, filling, loading and unloading equipment/facilities which are subject to the German water resources law (WHG 19).

Description of product REMACOAT D-40 ISO :

Polymeric base :	Diphenylmethanediisocyanate (isomeres and homologues)
Colour :	Colour of honey, transparent
Viscosity (25 °C) :	350 – 550 mPa*s

Thermal resistance (dry):

Continuous stress : -40 °C... +130 °C

Short-period stress : 150 °C

Fields of application:

- The coating system **REMACOAT D-40** is used in nearly all industries as multifunctional surface protection, because of its special qualities.
- Secondary containment
- Lagoons of waste water and coating of pools
- Cold-storage chambers or low temperature storage rooms
- Wash- and cleaning stations
- Coating of the outer wall of double walled tanks
- Petrochemical refineries
- Coating of oil pipelines
- Marine offshore-platforms
- Sea water desalination plants
- Neutralization basins
- Lining of waste water basins
- Storage basins in waste combustion plants

Shelf life:

12 months if stored in closed original drums under storage conditions according to DIN 7716.

CERTIFICATE-No.: Z-59.12-305

Description of product REMACOAT D-40 POLY :

Polymeric base :	Mixture of Polyoxyalkylamines
Colour :	beige, cloudy
Viscosity (25 °C) :	1.500 – 2.000 mPa*s

Hints for application:

Pre-heat temperature for both components	25 – 30 °C
Process temperature for both components	70 – 80 °C
Application	Spray with 2K-high pressure machines, airless
Mixing ratio (70 – 80 °C)	Volumetric Ratio : ISO : POLY = 100 : 100 Gravimetric Ratio : ISO : POLY = 94 : 100
Gelification-Time	According to temp. of substrate approx. 2 – 4 sec.
Tack-free- Time	According to ambient temp. approx. 6 – 8 sec.
Pot Life:	4 to 6 sec.
Tackfree Time:	6 – 8 sec.
Drying time:	Accessibility: 1 h Mechanical Loadability: 2 h Chemical Loadability: 12 h
Material Coverage:	1,2 kg/m ² and 1 mm Layer thickness
Important : The Poly-component has to be stirred well before use.	

Limit values for application:

Temperature range for application: -10 °C - +50 °C
 Maximum relative humidity for application to steel/concrete: 98 %
 Pay attention to the dew point limit: min. 3 °C >dew point

Physical- mechanical characteristics:

Technological values	DIN- / ASTM - Standards	REMACOAT D-40
Density [g/cm ³]	EN ISO 1183 / -	1,12 ± 0,02
Tensile strength [N/mm ²]	53504 / D-638	≥ 15
Tensile Elongation [%]	53504 / D-638	≥ 200
Module 100 [N/mm ²]	53504 / D-638	≥ 9
Hardness [Shore D]	53505 / D-2240	45 ± 5
Abrasion resistance[mm ³]	53516 / -	≤ 200
Rebound elasticity [%]	53512 / -	≥ 30
Tear growth resistance [N/mm]	ISO 34-1-2004 Methode A /	≥ 20

Final qualities are reached after 5 - 7 days. The technological values are determined after 28-days conditioning at ambient parameter (T = 23 ± 2 °C; Air humidity = 40 – 60 %). The information given above is based on approved test results and represents statistical product data, which does not however necessarily guarantee the specific properties of the product. We reserve the right to changes to technical specifications without prior notice, provided they ensure technical improvement without major modifications of the product itself.

Chemical-physical characteristics:

Properties	DIN - / ASTM-Standards	REMACOAT D-40
Surface resistance [Ω]	IEC 60167 / -	≥1,0 * 10 ¹¹
Water vapour permeability [g/m ² *d]	53122 / E-96	5 – 7 *
Water vapour permeation [ng/cm*h*Torr]	53122 / E-96	0,03 – 0,05 *
Pull off Strength (steel) [N/mm ²]	EN 24624 /	≥ 6
Pull off Strength (concrete) [N/mm ²]	D-4541	≥ 3
Peel strength (steel) [N/mm]	53531 / -	≥ 10
Peel strength (concrete) [N/mm]		≥ 5

*the values are determined for material thickness of 4 mm at a temperature of 38 °C

Standard programme REMACOAT D-40 ISO and POLY

Form of delivery:

Name of product	Drum size	Ref.No.
REMACOAT D-40 ISO	20 kg	590 286-6
	224 kg	590 289-7
REMACOAT D-40 POLY	20 kg	590 287-3
	230 kg	590 290-7

Please pass this data sheet to the person in charge of coating application. Above data and recommendations are based on extensive tests and are to be considered only as guidelines without any obligations. As we are continuously developing and improving our products we recommend to consider the date of this data sheet and, if necessary, to ask if there were changes in the meantime. In case of further questions please contact one of our technical advisors for detailed information at:

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