

PRODUCT INFORMATION - REMACOAT FR

General properties:

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

Due to the special formulation REMACOAT FR is named as fire retardant system which fulfils the following requirements of ÖNORM B 3800:

B1 – fire retardancy
Tr 1 – trop index
S 1 - smoke index

This classification is comparable with the European classification EN 13501-1B-s1d0

Chemical resistance (wet):

The outstanding feature of the coating system REMACOAT FR 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)

Description of product REMACOAT FR ISO:

Polymeric base :	Diphenylmethanediisocyanate (isomers and homologues)
Colour :	Colour of honey, transparent
Viscosity (25°C) :	650 - 800 mPa*s

Thermal resistance (dry):

Continuous stress: -40°C... +130°C
Short-period stress: 150 °C

Fields of application:

- Fire retardant coating systems for:
 - Street & Railway tunnels
 - Floor coating
 - Roof coating
 - Structures in Theme- and amusement parks
 - Buildings

Shelf life:

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

Limit values for application:

Temperature range: -10°C - +50°C
Maximum relative humidity: 98 %
Dew point distance: min. 3°C

Description of product REMACOAT FR POLY:

Polymeric base :	Mixture of Polyoxyalkylamines
Colour :	beige, cloudy
Viscosity (25°C) :	1.000 – 1.500 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 = 107 : 100
Jellification-Time	According to temp. of substrate approx. 2 – 3 sec.
Tack-free- Time	According to ambient temp. approx. 4 - 6 sec.
Drying time:	Accessibility: 1 h Mechanical Load ability: 2 h Chemical Load ability: 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.	

Physical- mechanical characteristics:

Technological values	DIN- / ASTM - Standards	REMACOAT FR
Density [g/cm ³]	EN ISO 1183 / -	1,13± 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	≥ 10
Hardness [Shore D]	53505 / D-2240	50 ± 5
Abrasion resistance[mm ³]	53516 / -	≤ 200
Rebound elasticity [%]	53512 / -	≥ 35
Tear growth resistance [N/mm]	ISO 34-1-2004 Method A /	≥ 40

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 FR
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 FR ISO and POLY

Form of delivery:

Name of product	Drum size	Ref.No.
REMACOAT FR ISO	20 kg	590 3270
	238 kg	590 3280
REMACOAT FR POLY	20 kg	590 3250
	230 kg	590 3260

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 considering 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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