

# Dencryl<sup>TM</sup> M42

## High flexible resin for water proofings on concrete

### Description

**Dencryl M42** resin is a modified methacrylate resin of high flexibility which is suitable for water proofing on interior and exterior concrete surfaces.

**Dencryl M42** resin is permanent flexible and can follow thermic movements of the concrete. As a result of the high flexibility water proofing appear a little bit tacky on its own surface and might lead to a certain absorbance of air dust-pollution like any other materials. This fact can be ignored when the membrane layer anyway will be overlayed by another concrete screed or tiles. For better light stability always add a small amount of 2 - 5 % Pigment Powder. To work out an individual solution for your job please contact our Technical Department for detailed information.

### Application

Membranes or water proofing requiring an approval for overlays made of concrete screed or tiles i.e., for balconies, swimming pools, bathroom, or other concrete floor constructions. After preparing the concrete surface, apply first a suitable primer, for instance the **Dencryl P11**. After curing, apply the coating mixture according to the formulation given in table 1. Depending on your skill and experience different tools to spread the coating material can be used, such like Mohair-rollers, comb trowel or smooth trowel. It is important to avoid blisters during the application. Two layers of 1 - 1,5 mm each will be necessary. Also consider applying the material up the walls, columns, or fixed machineries at least 5 - 10 cm to avoid water leakage. In case of overlaying

with tiles the last coating surface must be sprinkled fully with quartz 0,7 - 1,2 mm to provide a good bond to the tile adhesive mortar. Self-supported concrete screeds of more than 5 cm thickness can be laid on directly without sand sprinkling. The total thickness of the water proofing membrane should be appr. 2 - 2,5 mm.

For these application areas we can provide German Approvals for the following classes:

**Application Area A:** Water spillage on wet surfaces on floors (A2) and walls (A1) caused by cleaning water or water of natural use, such like swimming pool surroundings or in public bath or shower rooms.

**Application Area B:** Interior and exterior wall and floor surfaces of swimming pools filled with water of drinking category. For special salt waters used for medical purpose an individual approval will be necessary.

**Application Area C:** Walls- and floor surfaces in commercial establishments, also in connection with light chemicals (i.e. car wash, kitchens, canteens, food processing) except for those chemicals which require special and additional approvals (regulations concerning the ground water protection act § 19 WHG).

**Dencryl M42** waterproofing also meets the technical requirements underneath of Dencryl coating system B and C which is not included in the approval as the above-mentioned approval does not cover this application. Water proofing

made of **Dencryl M42** resin on concrete roofs without additional coverings made of concrete screeds or tiles will have to pass additional national testing and approvals depending on the country regulations and requirements.

## Guideline recipe and batch quantities

Item	Component	Guideline recipe (% by weight)	Comments	Batch for 10 litre bucket	
1	<b>Dencryl™ M42</b>	75 %		7.4 kg	7.4 litres
2	<b>Dencoat™ Floor Filler</b>	20 %		2 kg	Approx. 2.1 litres
3	<b>Dencoat™ Pigment Powder</b>	5 %		500 g	
<b>Total:</b>		<b>100 %</b>	<b>Average consumption: 1.3 g/m<sup>2</sup> per mm thickness</b>	<b>10 kg</b>	<b>approx. 7.7 litres</b>
4	<b>Dencryl™ Hardening Powder</b>	1 – 6 %	See "Hardener dosages" table for quantities	75 – 450 g	

The mixing device (dissolver) must be EX-proof. Stir moderately to avoid self heating during the process (max. +35°C).

## Characteristics of Dencryl™ M42 as delivered

Property	Measuring method	Approx. value
Viscosity at +20°C	DIN 53 015	300 - 500 mPa·s
Flow time at +20°C, 4 mm cup	ISO 2431	80 – 110 sec.
Density D <sub>4</sub> <sup>20</sup>	DIN 51 757	0.99 g/cm <sup>3</sup>
Flash point	DIN 51 755	+10°C
Pot life at +20°C (100 g, 2 % pbw. hardening powder)		12 - 15 min.
Application temperature		0°C to +30°C
Ultimate elongation when hardened		180 % at +23°C

## Hardener dosages

Temperature	Hardening powder % pbw. *	Pot life approx. min.	Hardening time approx. min.
0°C	6.0	20	80
+5°C	5.0	20	60
+10°C	4.0	15	40
+15°C	3.0	15	40
+20°C	2.0	15	40
+25°C	1.5	10	30
+30°C	1.0	8	25

\* The quantity of hardening powder is always related to the quantity of resin.

CE	
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22 <sup>1)</sup>	
M42 - 001	
EN 13813 SR-ART-B1,5-IR4	
Synthetic resins for internal uses (Application in accordance with the newest technical information)	
Reaction to fire:	E <sub>fl</sub>
Release of corrosive substances (Synthetic Resin Screed):	SR
Water permeability:	NPD <sup>2)</sup>
Wear resistance (Abrasion Resistance):	AR 1 <sup>3)</sup>
Bond strength:	B 1,5
Impact resistance:	IR 4
Sound insulation:	NPD <sup>2)</sup>
Sound absorption:	NPD <sup>2)</sup>
Thermal resistance:	NPD <sup>2)</sup>
Chemical resistance:	NPD <sup>2)</sup>

## CE-labelling

- 1) Last two digits of the year in which the ce marking was affixed.
- 2) NPD = No performance determined.
- 3) Refers to a smooth surface without broadcasting.

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