Protective coatings system for concrete floors

Tecnoriv EP 180 Ral *(see colour palette)*

PROTECTIVE COATING
PHYSICAL STRENGHT
CYCLE CE approved – Certificate n. 1305 - CPD - 0808
EN 1504-2 prospect ZA.1f

Description Epoxy – ammino paint, solvent free, charged with fillers or pigments, which cures at room temperatures.

Characteristics Good spreadability
Good adhesion.
Good chemical resistance.
Good resistance against water, oil, salt solutions, alkali solutions and diluted acids.

use For the realisation of protective coatings at medium thickness (400 ÷ 600 micron) For the protection of concrete structures, beams and pillars, internally in civil or industrial applications.

application δ *Tools:* short haired roller, by brush, or by airless spray equipment with nozzle 21/23.
Applied on primer: Tecnofix EP (to be chosen according to the kind of the surface).
Temperature of application: 10 ÷ 35 °C and relative humidity of max 60 %.
Clean tools with : MEK

METHOD OF USE

PREPARATION OF THE SUBSTRATE

Prior the application of the protective coatings, it is necessary to verify the condition of the cementitious substrate: it must be clean and oil free, without fats, delaminating particles and free from cracks and discontinuities. The preparation of the substrate should be done choosing the proper following procedures:
- Elimination with proper equipment of the superficial dust when the substrate seems in good condition. Vacuuming and/or washing with pressured water is always recommended.
- Repair or level with cement based mortars or resin based materials, when the substrate has cracks or anomalies. In any case, apply the coating only on de-dusted and sound substrates;
- Sandblast or shotblast with steel abrasive grit is needed in case of not-cohesive parts.

Avoid the application on substrates contaminated with oil and/or greases.

TECNOCHEM ITALIANA S.p.A.
24030 BARZANA (BERGAMO) ITALY – VIA SORTE 2/4,
TEL. **39 035 55.48.11 – TELEFAX **39 035 55.48.16
E-mail: info@tecnochem.it- www.tecnochem.it

CHOICE OF PRIMER

The use of a primer as base-coat is necessary to consolidate the substrate and to improve the adhesion of any consecutive protective coating. Depending on the type of substrate it is recommended to use the following primers:

- **TECNOFIX EP 51** with smooth and well-compacted substrates, suited also in case of presence of superficial humidity.
- **TECNOFIX EP 110** with smooth and well compacted substrates, but perfectly dry (max.3% superficial humidity)
- **TECNOFIX EP 170** for irregular, but cohesive substrates, suited also in case of presence of superficial humidity.
- **TECNOFIX EH 100** for irregular and wet, but cohesive substrates.

(see also the relative datasheets)

APPLICATION

Make sure the room is well ventilated and follow the recommendations stated in the Material Safety Data Sheet on the use of PPE (Personal Protective Equipment).
Continue with the application of **Tecnoriv EP 180**, in 2 layers, as follows:
- Pour component B in component A and mix for 2-3 minutes, or till complete homogenisation of the mix, using a suited drill with whip.
- apply by short hair roller, or in case of big surfaces, by airless spray.
- wait till drying of the film, than proceed with the second layer.

IMPORTANT : when the temperature of the ambient and the substrate are less than 15°C, it is necessary to heat separately the 2 components of the product to a maximum temperature of 30°C (eventually en bain-marie) in order to maintain the low viscosity and the better applicability.

DO NOT APPLY AT TEMPERATURE LOWER THAN 10°C.

APPLICATIVE CONDITIONS

Temperature of substrate	: +10°C / +35°C
Humidity of substrate	: ≤ 3%
Ambient temperature	: +10°C / +35°C
Relative humidity	: max 60%
Dew point	: the substrate and the product must be at a temperature of minimum 3°C above the dew-point to reduce the risk of condensation

PACKAGING

☒ Supply - *kg*

component	a	b	a+b
Pail	8	2	10

STORAGE

Store the original and unopened packaging at a temperature between + 5°C and + 35°C. Product can be kept 12 months from the production date.

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TECHNICAL CHARACTERISTICS

APPLICATIVE CHARACTERISTICS at 20 ± 2°C	Test method	Unit of measurement	Typical values
Mixing ratio in weight	-	A : B	8 : 2
Specific weight	EN ISO 2811-1	kg/l	~ 1,45
Viscosity Brookfield LV	EN ISO 3219	cP	~ 4000
Solid residue in total in weight	-	%	≈ 100
Consumption per layer	-	Kg/m^2	0,200 ÷ 0,250
Final dry thickness (for 200 g/m^2)	-	µ	~ 130
Pot life	EN ISO 9514	minutes	75 ± 10
Workability time	EN ISO 9514	minutes	~45
Touch dry	I – 54 (internal)	hours	~12
Completely hardened	-	days	7

PERFORMANCE CHARACTERISITICS	Test method	Unit of measurement	Typical values	Limit values according EN 1504-2
Determination of liquid water permeability	EN 1062 - 3	$Kg/m^2 \times h^{0,5}$	0,0018	< 0,1
Impact resistance	EN 6272 - 1	Nm	> 10 (classe II)	≥ 4(classe I) ≥ 10(classe II) ≥ 20(classe III)
Measurement of bond strength by pull-off (tested on all the primers)	EN 1542	N/mm^2 Type of failure	> 3 A = failure in concrete	≥ 2 (with traffic)
Resistance to temperature shock	EN 13687 - 5	N/mm^2 Type of failure	> 3 A = failure in concrete	≥ 2 (with traffic)
Determination of abrasion resistance (H22,1000 cycles, charge 1000 g)	EN 5470 - 1	mg	2104	< 3000

The above date are based on our actual and most experienced practical and laboratory knowledge and the results are collected from application of the product in different situations. Tecnochem Italiana does not assume any responsibility regarding inadequate or negative performance as a result of improper use of the product of for defects deriving from factors or elements other than the quality of the product including improper storage. The technical characteristics and performance mentioned in this datasheet are updated periodically . The revision dates and number of revision of the datasheets are listed in the table below . Eventual variations are traceable on our website www.tecnochem.it where the most updated datasheets can be retrieved.

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