Protective coating systems for concrete floors

Tecnoriv EP 400 GREY

PROTECTIVE COATING
CHEMICAL RESISTANT

CYCLE CE approved – Certificate n. 1305 - CPD - 0809
EN 1504-2 prospect ZA.1g

Description		Two-components paint, based on epoxy-ammino resins, charged with fillers and pigments, solvent free, which cures at normal temperatures.
Characteristics		Good adhesion High chemical resistance to water, oils, aliphatic hydrocarbons, saline solutions, and diluted acids.
Use		For the realisation of a medium thick coating (600 ÷ 1000 micron) for the protection of concrete constructions against aggressive chemicals.
Application	δ	*Tools:* by brush, roller, or by airless spray with nozzle 40/45. *Applied on* Sanded steel Sa 3 or primer Tecnofix EP (to be chosen according the type of substrate) *Temperature of application:* 10 ÷ 35 °C and relative humidity of max 60 %. *Clean tools with* : MEK or acetone or epoxy diluents .

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.

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)

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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 400**, 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 paddle mounted on a slow speed drill.
- apply by short hair roller, or in case of big areas, 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

REMARK
Do not apply the product when the temperature of application is higher than 50°C

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	~ 1,43	
Viscosity Brookfield LV	EN ISO 3219	cP	14.000 ± 2.000	
Solid residue in total in weight	-	%	≈ 100	
Consumption per layer	-	g/m^2	300 ÷ 350	
Final dry thickness (per 300 g/m^2)	-	µ	~ 200	
Pot life	EN ISO 9514	minutes	90 ± 10	
Workability time	EN ISO 9514	minutes	~45	
Touch dry	I – 54 (internal)	hours	~6	
Completely hardened	-	days	7	
PERFORMANCE CHARACTERISITICS	**Test method**	**Unit of measurement**	**Typical values**	**Limit values according EN 1504-2**
Adhesion direct pulling on concrete	EN 1542	N/mm^2 Type of failure	> 4 A = failure in concrete	≥ 2 (with traffic)
Hardness shore D	EN ISO 868	-	82	-
Resistance to serious chemical attack * (measurement of hardness after 28 days contact)	EN 13529	-	82,5	Reduction of the hardness < 50%

* for the details of the test, consult the certificates, available upon request.

Chemical resistance :

❑ Weak mineral acids	excellent	❑ Alcoholic solvents	sufficient
❑ strong mineral acids	good	❑ ketone solvents	insufficient
❑ organic acids	insufficient	❑ aromatic solvents	insufficient
❑ weak alkali's	excellent	❑ water	excellent
❑ strong alkali's	excellent	❑ sugars	good
❑ salts	excellent	❑ fruit juice	good

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