

**Advanced
Pavement
Systems**



Certified Quality System since **FEBRUARY 1993**


From Project to Jobsite

**Finishing system for concrete floors with limited reaction to fire, complying with
EN 13501-1/ B_{fl} s1**

Tecnopav EP 410 LRF **Ral (see colour palette)**

SELF-LEVELLING PROTECTIVE COATING
PHYSICAL RESISTANT

FIRE REACTION CLASS: B_{fl} s1 (EN 13501-1)


SYSTEM  approved – Certificate n. 1305 - CPD - 0808
EN 1504-2 prospect ZA.1f

Description 


Three-components epoxy-amino based product, charged with fillers, pigments and well grade quartz sand, solvent free self-levelling mortar for floors. Hardens at room temperature.

Characteristics 

Excellent application and self-levelling properties
Very high adhesion
Good chemical resistance
Good abrasion resistance
Easy maintenance and hygienic properties.
Limited reaction to fire.

Use 

For the realisation of a continue floor coating at low thickness 500÷600 micron (two-components) and/or medium thickness, 3÷5 mm (three-components, in function of the type of finish required, and the substrate). For application inside of industrial, commercial and public buildings, where a limited reaction to fire is required.

Application 

Tools: roller short hair or brush for the two-component version, dented trowel and spiked roller for the three-components version. Apply by pouring over the surface and distribute.
Applied on : primer Tecnofix EP. The type of primer can depend from the type of substrate.
Temperature of application : 15 ÷ 35 °C and relative humidity max 60 %.
Cleaning of tools : MEK, acetone or epoxy diluents.

APPLICATION METHOD

SUBSTRATE PREPARATION

Prior to proceeding with the application of the protective coatings, it is necessary to verify the condition of the cementitious substrate: verifying in clean and absent of oil traces, fat, delaminating particles, free from cracks and discontinuities. Continue with the preparation of the substrate choosing the best-suited procedure accordingly:

- elimination with proper equipment of the superficial dust when the substrate seems in good condition. Recommended are vacuum aspiration and/or high pressure water cleaning with pressured water;
- repair or level with cement based mortars or resin based materials, when the substrate has cracks or anomalies. In any case, work only on de-dusted and cohesive substrates;
- sandblast or grinding in case of un-cohesive parts. Avoid the application on substrates contaminated with oil and/or greases.

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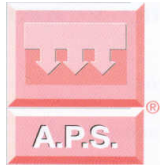
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CHOICE OF PRIMER

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).

After drying of the primer, continue with the application of Tecnopav EP410/LRF, as follows:

For low thickness:

- Pour component B into component A and mix for 2-3 minutes or until complete homogenization of the mixture with a suitable drill with whip at low speed;
- Apply with short haired roller, or in case of very large surfaces, with airless spray.
- Wait for the drying the applied coating before proceeding with the application of the second coat.

For medium-high thickness:

- Pour component B into component A and mix for 2-3 minutes, or until complete homogenization of the mixture with a suitable drill with whip at low speed;
- Add slowly and under continuous mixing, the component C and mix until the paste is smooth and free of lumps;
- Pour the mix on the floor and spread by notched trowel, taking care to distribute evenly over the surface to be coated. A packaging unit of 30 kg, applied three millimeters thick, will be sufficient for about 5 to 6 m²;
- Use immediately and repeatedly a spiked roller on the layer applied in order to facilitate the release of entrapped air during mixing. Repeat the rolling until no more bubbles are visible on the surface of the coating.

Always wait till the applied layer is dry before proceeding with the application of a potential top coat (such as a topcoat based on polyurethane).

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.

It is also possible to reduce the quantity of component C, adding only 10 kg sand instead, to the mixture A+B.

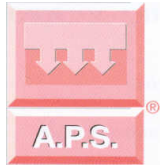
DO NOT APPLY AT TEMPERATURE LOWER THAN 15°C.

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APPLICATION CONDITIONS

Temperature of substrate	: +15°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	c	Total packaging unit
pail	7,5	2,5	-	10
	15	5	15	35

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.

TECHNICAL CHARACTERISTICS

APPLICATIVE CHARACTERISTICS at 20 ± 2°C	Test method	Unit of measurement	Typical values
<i>TWO-COMPONENTS VERSION</i>			
Mixing ratio in weight	-	A : B	7,5 : 2,5
Consumption per layer	-	g/m ²	250 ÷ 350
Final dry thickness for 300 g/m ²	EN 1062-1	μ	~ 230
Specific weight	EN ISO 2811-1	kg/l	~ 1,30
Viscosity Brookfield LV	EN ISO 3219	cP	6000 ± 1500
<i>THREE-COMPONENTS VERSION</i>			
Mixing ratio in weight	-	A : B : C	15 : 5 : 15
Consumption	-	Kg/m ² /mm	~ 1,7
Advised thickness	-	mm	3 ÷ 5
Specific weight	EN ISO 2811-1	kg/l	~ 1,65
<i>WORKABILITY (for both versions)</i>			
Pot life	EN ISO 9514	Minutes	75 ± 10
Workability time of the mix	EN ISO 9514	Minutes	45 ± 5
Touch dry	I – 54 (inside)	Hours	8 ± 2
Complete curing	-	days	7

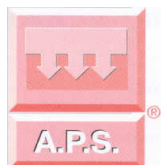
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PERFORMANCE CHARACTERISTICS	Test method	Unit of measurement	Typical values	Limit values according EN 1504-2
Capillary absorption and water vapour permeability	EN 1062-3	Kg/m ² x h ^{0.5}	0,0015	< 0,1
Shock resistance	EN ISO 6272-1	Nm	> 10 (class II)	≥ 4 (class I) ≥ 10 (class II) ≥ 20 (class III)
Adhesion to concrete (two-component)	EN 1542	N/mm ² Type of failure	> 3 A = concrete failure	≥ 2 (with traffic)
Adhesion to concrete (three-component)	EN 1542	N/mm ² Type of failure	> 3 A = concrete failure	
Resistance to thermic shock	EN 13687-5	N/mm ² Type of failure	> 3 A = concrete failure	≥ 2 (with traffic)
Wear resistance (bi-component) (H22, 1000 cycles, load 1000 grams)	EN ISO 5470-1	mg	1066	
Wear resistance (tri-component) (H22, 1000 cycles, load 1000 grams)	EN ISO 5470-1	mg	918	< 3000

OTHER TECHNICAL CHARACTERISTICS

TEST	UNIT OF MEASUREMENT	TYPICAL VALUES
Linear thermal dilatation coefficient	°C ⁻¹	~ 5,8 x 10 ⁻⁵
Glass transition temperature	°C	≥ 40
Flexural strength	N/mm ²	≥ 20
Compressive strength	N/mm ²	≥ 30
Elasticity modulus in compression	N/mm ²	> 3000

The above data 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 or 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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