tecnofloor Tw-3040

WATER BASED EPOXY COATING

Pigmented and fluid coating, water-based with medium chemical and mechanical resistance, presented in two-component, indicated as finishing in industrial floors and road tracks.

USES

- Concrete floor surface finishes in workshops, garages and warehouses requiring medium mechanical properties.
- As protection against spills and aggressive chemicals.
- Floor surfaces that require non-slip textures (multilayer application).
- Garage floor surface finishes.
- May be applied on concrete in general (interior areas).

Performance	Depending on the method of application and support.
Repainting	12 ~ 24 hours
Drying	± 24 hours (23 ºC)
Application method	Roller

GENERAL FEATURES

- Excellent bond and great coverage.
- Waterproof and impermeable to CO2.
- Breathable (permeable to steam).
- Does not contain solvents.
- Chemical resistant.
- Cleans off easily with water (whilst fresh).
- Satin-gloss finish.
- It is recommended that the same batch number is used in each area of application to ensure an even colour is obtained.
- Water may be added to make the mixture easier to work with, although the maximum proportion is 5-10%.
- To reduce the risk of condensation, both the substrate and the ambient temperature should be a least 3 ºC

above dew point at the time of application.

- Total curing takes 7 days; until then, avoid direct contact with water or other reactants.
- TECNOFLOOR Tw-3040 d should be applied in dry conditions avoiding the presence of humidity or water coming from the surface to be coated or the substrate, whether at the time of application or subsequently (pressure from phreatic water level).
- In the event there is humidity in the substrate at the time of application, consult the technical specifications of our primers where the maximum humidity ranges are specified.
- Given that it is an epoxy, outdoor application should be avoided as its initial colour will yellow if exposed to UV rays. When applying in such outdoor conditions, finish with a top layer of coloured TECNOTOP- 2C.
- Do not apply at temperatures below 8 ºC or above 30 ºC and with relative humidity above 80%.
- Do not add solvents or other substances that could affect the material's properties.
- Do not apply, under any circumstances, on surfaces treated with high alkalinity products.
- It’s important to ensure good ventilation in the area treated to promote TECNOFLOOR Tw-3040 curing and prevent colour tone changes in the finish
- It has water potable contact certification, and alimentary contact certification (UNE-EN1186-1:2002, UNE-EN1186-3:2002, UNE-EN1186-14:2003),), and the european certification for protection of a structural concrete (UNE 1504-2:2005).

Density	± 1,30 g/c³
Solids	± 65%
Viscosity ISO nº 6 at 23 ºC	± 1500 cps
Pot life at 23 ºC	± 90’
Recoat time at 23 ºC	5 ~ 7 hours
Total cured at 23 ºC	7 days
Hardness Shore D at 7 days	>75
Practicable	± 24 hours
Adherence to concrete (UNE EN 1542:2000)	>2 N/m² (MPa)
T support/ambience	8 ºC ~ 30 ºC
Resistance to temp.	-20 ºC ~ 80 ºC
Abrasion resistance TABER (UNE EN ISO 5470-1:1999)	Lost mass 262 mg

COLOURS

Grey, brown, green.

PRESENTATION FORMATS

Metal tins, in these two formats:
COMPONENT A: 20,20 kg + COMPONENT B: 4,80 kg

COMPONENT A: 4,04 kg + COMPONENT B: 0,96 kg

EXPIRY

24 months at temperatures between 5° C and 25° C, provided it is stored in a dry place. Once the tin has been opened, the product must be used immediately.

APPLICATION

Substrate:

- The concrete slab should have a minimum tensile strength of >1.5 N/sq. mm (MPa) and be free from grease, oil, concrete laitance, curing liquids or any other treatments, such as silicones or deteriorated paint.
- The substrate should be open pore and, therefore, it is essential to commence by milling or sand blasting, followed by dust aspiration. Sanding is not recommended as a rough, open pore surface is needed to guarantee fixation of the primer.
- The substrate can be damp, but it should be noted that TECNOFLOOR Tw-3040 may not be applied on concrete that exudes water or in areas where the phreatic water level could affect bonding of the system's components, which could cause the coating to bubble.

Primer:

- It is essential to first of all to prime the surface using PRIMER EPw-1070 in order to improve surface bonding and saturate the concrete's pores, clogging them to ensure a perfect bond with the surface and absence of bubbles in the subsequent finish.
- The primer should be left to dry for between 5 to 7 hours at the most before applying the epoxy paint TECNOFLOOR Tw-3040; ambient temperature should be around 23 ºC with no more than 80% relative humidity.

Mixing:

- TECNOFLOOR Tw-3040 comes pre-weighed in the appropriate amounts for subsequent mixing. Partial mixes of the pre-weighed components is not recommended.
- Shake the tin containing Component A and then pour in the contents of Component B. Mix using a rod stirrer at low speed until the mixture is thoroughly combined. Make sure you stir well around the edges and at the bottom of the tin.

Cleaning:

- While fresh cleaned with water; once hardened only by mechanical means.

APPLICATION METHODS

Paint:

- Prior to applying TECNOFLOOR Tw-3040 we recommend application of our water-based epoxy primer, PRIMER EPw-1070, which ensures a perfect seal and bond and prevents the possible appearance of variations in the gloss due to different absorption levels in extremely heterogeneous concrete substrates. Following this, apply two coats of TECNOFLOOR Tw-3040, making sure the first coat is completely dry before applying the second. The product can be applied using a brush, short nap roller or airless spray gun. In the case of very absorbent substrates or when using very pale colours, a third coat of TECNOFLOOR Tw-3040 may be required.

Multilayer

- This system provides a non-slip surface to give the coating a slip resistance level of >45 (Class 3) pursuant to Technical Building Specification DB-SUA. Apply TECNOFLOOR Tw-3040 using a roller and then sprinkle the surface with silica sand until it is saturated. Once hardened sweep away the excess sand and lightly sand down the surface, aspirating the residue. A rubber fork and then a short nap roller may be used to give the coating its finish. Consumption is approximately 250-500 g/sq. m. and layer applied, depending on the roughness of the substrate.
- The presence of high relative ambient humidity during application and drying can give a matte, or even whitish finish due to the difficulties of water drying. To prevent this we recommend the area is kept well ventilated during application and the first twenty-four hours of drying, if possible, by mechanical means.

COMPLEMENTARY PRODUCTS

The TECNOFLOOR Tw-3040 epoxy system may be complemented with the following products as a means of protection or to improve its physical-mechanical properties depending on its exposure, the desired finish or the type of substrate.

- PRIMER EP-1020: Mixed with silica sand in a ratio of 1:1.5, this is used to fill in depressions in concrete surfaces, rapidly providing a firm and fast drying even base.
- PRIMER EPw-1070: This primer is applied on the substrate beforehand to improve bonding and level the surface, as well as regulating the humidity in the substrate (see permitted levels in their technical data sheet).
- TECNOTOP 2C-: Dual-component coloured aliphatic polyurethane varnish used to protect roofs and floors or ground against UV rays when there is no other protection.

PERFORMANCE TABLE (DEPENDING ON SUBSTRATE AND APPLICATION SYSTEM USED):

product	paint	multilayer
PRIMER EPw-1070	250 ~ 1000* g/m²	
TECNOFLOOR Tw-3040	250 ~ 500 g/m² / layer	

* This maximum value is used only as a vapor barrier application.
All values that are included in the table above, are approximate and may fluctuate due to the situation of the support or the methodology employed.

HANDLING AND TRANSPORT

These safety recommendations for handling, are necessary for the implementation process as well as in the pre-and post, on exposure to the loading machinery.

- Respiratory Protection: When handling.
- Skin protection: Use rubber gloves, remove immediately after contamination. Wear clean body-covering. Wash thoroughly with soap and water after work and before eating, drinking or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in air.
- Waste: Waste generation should be avoided or minimized. Incinerate under controlled conditions in accordance with local laws and national regulations.

Anyway, consult the safety data sheet of the product, are publicly available.

Finlàndia, 33 · 08520 Les Franqueses del Vallès · Barcelona (Spain)
(+34) 93 568 21 11 · info@tecnopol.es · www.tecnopol.es

TECHNICAL DATA

Density at 23 ºC	±1,30 g/c³
Solids	±65 %
Viscosity ISO nº 6 at 23 ºC	1.500 cps
Pot life at 23 ºC	±90 minutes
Initial driyng at 23 ºC	±45 minutes
Recoat time at 23 ºC	5 ~ 7 hours
Total curing at 23 ºC	±7 days
Hardness Shore D at 7 days at 23 ºC	>75
Transitable(pedestrian)	±24~48 hours
Concrete adherence	>2 N/mm² (MPa)
Support and environement range of temperature (of appliations)	8 ºC ~ 30 ºC
Max. environment moisture	80 %
Temperature resistance (applied)	-20 ºC ~ 80 ºC
Abrasion resistance TABER UNE EN ISO 5470-1:1999	Lost mass= 262 mg
Liquid water permeability UNE EN 1062-3:2008	w< 0,1 kg/m²*h*0,5

Aproximately values

CHEMICAL RESISTANCES

* Resistance's measurements were measured in permanent immersion during 21 days at 23 °C.

INORGANIC ACIDS

Sulfuric 20%	++	(loss of color)
Hydrochloric 5%	+	(loss of color)
Nitric 10%	+	(loss of color)
Phosphoric 5%	+	
Nitric 10%	+	

ALKALIES

Sodium hydroxide 50%	+++
Potassium hydroxide 50%	+++
Ammonia 25%	+++

SOLVENTS

Etanol	+++
Xylene	+++
Biodiesel	+++

OILS:

Brake liquid	+++
Fuel oil	+++
Hidraulic liquid	+++

OTHERS:

Sodium choride	+++

+++ Resistant
++ Resistant with a lighter lose of properties
+ Resistant to spills or splashes

Finlàndia, 33 · 08520 Les Franqueses del Vallès · Barcelona (Spain)
(+34) 93 568 21 11 · info@tecnopol.es · www.tecnopol.es