



TECNOFLOOR TW-3040 - TWO-COMPONENT, AROMATIC, EPOXY WATER BASED RESIN FOR FLOORING

TECNOFLOOR Tw-3040 is a two- component, pigmented and fluid coating, epoxy, aromatic water-based, that provides a seamless, wearing suitable for the traffic of wheeled vehicles in areas used for car parks. Indicated as a finishing for car parks, and industrial flooring.

It has water potable contact certification, and alimentary contact certification (EN 1186-1:2002, EN 1186-3:2002, EN1186-14:2003), and the European certification for protection of a structural concrete (EN1504-2:2005).



USES

Epoxy resin for flooring and protection in the next 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 (a multilayer application).
- Garage floor surface finishes.
- May be applied on concrete in general (inside areas).

NOTE: call our technical department about the application to other supports or situations

density at 23°C	±1,30 g/cm ³
dry time at 23°C	4~5 hours
curing time at 23°C	±7 days
recoat time at 23°C	5~7hours
walkable/traffic cars at 23°C	±24 hours /7 days
application method	by roll



COLORS

	Green RAL 6001
	Grey RAL 7042
	RAL



GENERAL FEATURES

- Excellent bond and great coverage.
- Breathable (permeable to steam).
- Does not contain solvents, do not add any solvent
- 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 color 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 °C 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, an outdoor application should be avoided as its initial color will yellow if exposed to UV rays.
- Do not apply at temperatures below 8 °C or above 30 °C and with relative humidity above 80%.
- 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 color tone changes in the finish
- It has water potable contact certification, and alimentary contact certification (EN1186-1:2002, EN1186-3:2002, EN1186-14:2003), and the European certification for protection of structural concrete (EN1504-2:2005).

PACKAGING

Metal tins, in these two kit formats:

- COMPONENT A: 20,20 kg + COMPONENT B: 4,80 kg
- COMPONENT A: 4,04 kg + COMPONENT B: 0,96 kg

SHELF LIFE

24 months at temperatures between 5° C and 35° C, provided it is stored in a dry place. Once the tin has been opened, the product must be used immediately.



APPLICATION PROCEDURE

Surface

- The concrete slab should be free from grease, oil, concrete latencies, 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 sandblasting, followed by dust aspiration. Sanding is not recommended as a rough, open-pore surface is needed to guarantee the 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 the 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. It's possible to apply TECNOFLOOR Tw-3040 as a primer too: applying diluted with 5-10% clean water.
- After applying the primer it is necessary to wait the dry time of the used primer for the application of TECNOFLOOR Tw-3040.

Mixing

- TECNOFLOOR Tw-3040 comes pre-weighed in the appropriate amounts for subsequent mixing. Partial mixes of the pre-weighed components are not recommended.
- Shake the tin of 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

- Open the buckets, homogenize both components by means of mechanical agitation equipment.
- Mix the two components until getting a homogeneous product mixed
- Apply the first coat of TECNOFLOOR Tw-3040. For the application, use a brush, short hair roller or air-less gun can be used.
- Wait for it to dry completely.
- Apply the second coat. A brush, short hair roller or air-less gun can be used for the application.
- The third coat of TECNOFLOOR Tw-3040 may be necessary on very absorbent substrates or for very light colors.

Multilayer

- This system provides a non-slip surface to give the coating a slip resistance level of >45 (Class 3).
- Open the buckets, homogenize both products by means of mechanical agitation equipment.
- Mix the two components and mix until a homogeneous product mixture is obtained.
- Apply the first coat of TECNOFLOOR Tw-3040. For the application, a brush, short hair roller, or air-less gun can be used.



- Wait for it to dry completely.
- Sprinkle the surface with siliceous aggregate until saturation.
- Once hardened, the remaining aggregate must be removed by sweeping.
- Lightly sand the surface and then vacuum the residues generated.
- Apply a second coat of TECNOFLOOR Tw-3040 with the help of a rubber rake, finishing with a short hair roller.
- The consumption is approximately 250-300 g/m²/coat, depending on the roughness of the support.
- The presence of high relative ambient humidity during application and drying time can give a matte finishing or even whitish due to the difficulties of water drying. To prevent this, we recommend to keep well ventilated the work area during the application, and the next twenty-four hours, it is possible, by mechanical means.

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

product	paint	multilayer
PRIMER EPw-1070	150-200 g/sqm(according to physical conditions of the surface)	
TECNOFLOOR Tw-3040	250 g/sqm/coat	250 g/sqm/coat + silica sand spreading+300 g/sqm/coat

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.

COMPLEMENTARY PRODUCTS

The TECNOFLOOR Tw-3040 epoxy water-based resin 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-1010: fillerized epoxy resin to be used to fill in depressions in concrete surfaces, rapidly providing a firm and fast drying even base
- PRIMER EP-1020: Mixed with SILICA SAND in a ratio of $\pm 1:4$, 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 datasheet).
- MASTIC PU: polyurethane mastic for filling joints (use together with TECNOBAND 100 when necessary)

HANDLING

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 the air.
- Waste: Waste generation should be avoided or minimized. Incinerate under controlled conditions in accordance with local laws and national regulations.

Anyway, consult the material and safety data sheet of the product, or our technical department.



TECHNICAL DATA

PROPERTIES	VALUES
Density at 23 °C ISO 1675	±1,30 g/cm ³
Viscosity at 23 °C ISO 2555	1.500 cps
Density comp. A at 23 °C ISO 1675	±1,30 g/cm ³
Density comp. B at 23 °C ISO 1675	±1,10 g/cm ³
Viscosity comp. A at 23 °C ISO 2555	1.400 - 1.800 cps
Viscosity comp. B at 23 °C ISO 2555	600 - 700 cps
Solids content ISO 1768	±65 %
VOC(volatile organic compounds)	0 g/l comp. A + 0 g/l comp.B
Hardness Shore A at 7 days at 23 °C	>75
Concrete adherence	>2 MPa
Pot life at 23 °C	±60 minutes
Dry time at 23 °C	±4~5 hours
Total curing at 23 °C	±7 days
Recoat time at 23 °C	5~7 hours
Ready to use: walkable/Traffic car at 23°C	±24 hours / 7 days
Support/ambiance application temperature range	8 °C ~ 30 °C/ 10 °C ~ 30 °C
Ambiance service temperature range	-20 °C~80 °C
Abrasion resistance TABER EN ISO 5470-1:1999	Lost mass= 262 mg
Liquid water permeability EN 1062-3:2008	w< 0,1 kg/m ² *h*0,5
Max. environment moisture	80%

These values in this table are approximate and can vary depending on the situation of the carrier or application methodology employed.



CHEMICAL RESISTANCE

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 chloride	+++
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+++ Resistant

++ Resistant with a lighter lose of properties

+ Resistant to spills or splashes

NOTE: Resistance's measurements were measured in permanent immersion for 21 days at 23 °C.

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