TECNOTOP 2C - TWO-COMPONENT, ALIPHATIC POLYURETHANE SOLVENT BASED RESIN SUITABLE AS A FLOORING AND PROTECTION AGAINST UV RAYS

TECNOTOP 2C is a two-component aliphatic polyurethane resin for treatment, decoration, and protection of flooring has a shiny finishing and forms a hard, strong, continuous film, with excellent adhesion and mechanical properties as its excellent resistance to abrasion and stress that make it resistant to weathering, extreme temperatures, and UV radiation. It is suitable for coating protection for the traffic deck.

CE

USES

Polyurethane resin to use in the next situations:

- As a continuous surface coating for industrial or commercial resistant flooring use.
- used in walkable /car park transit uses, after DESMOPOL or TECNOCOAT MEMBRANE
- Protection against UV rays on TECNOCOAT pure polyurea membrane or DESMOPOL polyurethane membrane on flat or sloped roofs, terraces, and balconies.

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

density at 23ºC	±1,20 g/cm³
approx. total consumption	150~300 g/m²(depending on final scope)
drying time at 23ºC	±2 hours
recoat time at 23ºC	2~48 hours
dilution	DESMOSOLVENT (max. 5-7%), in case of mechanical application
application method	by brush, roller or“airless” equipment, always thin coats application

COLORS

	Neutral
	Grey RAL7042
	Red tile RAL 8004
	RAL

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

GENERAL FEATURES

- It is a glossy, aliphatic and translucent polyurethane resin
- It is colored using PIGMENTS (20% on weight)
- Is served on any RAL color, except metallic ones (check sell conditions on the price list)
- It has an SRI Index according to ASTM E1980-11 (TECNOTOP 2C White color)
- It forms a continuous coating, easy to clean and maintain and resistant to algae and mold growth.
- suitable for ponding water, and works under ponding water (according to ETAG 005)
- TECNOTOP 2C 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 their maximum humidity ranges are specified.
- The final product is obtained by mixing 100% of the two components. If only part of the product is used, make sure that this ratio is always maintained to ensure that the final result retains the product's best qualities.
- TECNOTOP 2C can be applied on a variety of surfaces: concrete, cement, ceramics, TECNOCOAT or DESMOPOL membranes (for UV rays protection)
- Apply on dry, firm substrates, with a surface temperature of between 3 ºC above the dew point, an ambient temperature of at least 10 ºC.
- Mix both components together well using a rod stirrer for around 2 minutes, or until the two components are completely mixed. Then, apply in thin layers.
- TECNOTOP 2C must be applied in thin layers, with a roller, brush or airless spray equipment (nozzle: 0.007" to 0.011"; nozzle tip pressure, 180 to 200 kg/m²).
- It can be thinned using DESMOSOLVENT, up to 5% for applications with airless spray equipment.
- Do not apply for swimming pools coatings.
- It has CE mark if it is used on the waterproofing systems, TECNOCOAT P-2049, based in pure polyurea or DESMOPOL system based on polyurethane, under European guide ETAG #005. Under EOTA and BBA 16/5340 approvals.

YIELD

The yield of TECNOTOP 2C varies depending on the layers applied, the type of substrate or the final use. It is applied in thin layers, consumption is approximately 150~200 g/m²/layer.

PACKAGING

Metal tins in two different formats:

- LARGE:17,2 kg + 2,8 kg
- SMALL: 4,3 kg + 0,7 kg (only in neutral and grey color)

SHELF LIFE

Component A expires after 24 months, component B expires after 12 months, at temperatures between 5° C and 35°, provided it is stored in a dry place. Once the tin has been opened, it must be used immediately.

APPLICATION METHOD

In general, you should take the following factors:

- repair the surface (fill in depressions, eliminate unevenness, eliminate any old waterproofing, etc.)
- detail works(perimeter, sinks/drainages, expansion joints or structural)

- clean up the surface or substrate, removing any dust, dirt, grease or efflorescence.
- the surface has to be enough compressive strength of adhesion of the membrane. If it were not so, we will proceed to apply our primers resins to achieve this target
- in case of Tecnotop 2C neutral version, add the proper quantity of PIGMENTS (20%) inside the component A and mix until getting a homogenized product, using an electric mixer medium speed; after that, add component B
- in case of Tecnotop 2C already pigmented, pour component B on component A and stir to getting a homogenized product
- in case of doubt of all above, apply before in a restricted area and to check

TECNOTOP 2C can be applied to many different surfaces and the procedure will vary depending on its nature or state. Below we set out some of the applications for the most common surfaces; for other surfaces not described, please contact our technical department.

TECNOCOAT/DESMOPOL, waterproofing membranes

- clean up the surface or substrate, removing any dust, dirt, grease or efflorescence
- apply PRIMER PU-1000/PRIMER EPw-1070, with a yield of approximately 50~70 g/m², if the time of application of membrane(TECNOCOAT or DESMOPOL) is over 24~48 h, and depending on the state of the substrate or the surface's porosity too.
- apply by roll, thin layers of colored TECNOTOP 2C (total consumption 200 - 300 g/m², depending on the scope)

Cement or concrete surfaces

- any depressions or voids should be repaired using a mix (ratio of ±1:4) of our epoxy resin PRIMER EP-1020 mixed with silica sand.
- fill joints with MASTIC PU, polyurethane mastic
- the concrete should be completely cured (concrete curing takes 28 days), or, in any case, the maximum level of humidity allowed for the substrate should be verified, depending on the primer used.
- any concrete laitance or release agents should be eliminated and an open-pore surface achieved by grit blasting, milling, or sanding.
- clean up the surface or substrate, removing any dust, dirt, grease, or efflorescence.
- apply PRIMER PU-1050/PRIMER PUc-1050/ PRIMER PU-1000, with a yield approximately 250 g/m² (two or more thin coats) always depending on the state; or apply PRIMER WET, total consumption around 450 g/m². Consumptions depending on the state o of the substrate or the surface's porosity or humidity.
- apply by roll, thin layers of colored TECNOTOP 2C(total consumption 300 g/m² depending on the scope)

Ceramic surfaces

- continuous sanding of the surface, to avoid the addition of water to the substrate. This action will lead to the opening of the pore of the ceramic flooring, cleaning of adhering efflorescence or dirt, and regularisation of the surface, without the addition of water.
- on ceramic surfaces, there must be no empty joints, elements or loose pieces. They must be filled with MASTIC PU or with our mortar made with our epoxy resin PRIMER EP-1020 and silica aggregate (ratio ±1:4), or cementitious materials used to make joints.
- in existing expansion joints: empty old material, clean and fill with MASTIC PU. Complement the joints with TECNOBAND 100 if necessary (in joints greater than 20 mm wide).
- after that, the entire surface must be cleaned and removed from contaminants such as dust or particles from these previous processes by mechanical vacuuming.
- apply PRIMER EP-1040 epoxy resin with a total consumption of 100-150 g/m² or PRIMER EPw-1070 epoxy water-based resin, with a total consumption of around 150-200 g/m² (two or more thin coats) always depending on the state of the substrate or the surface's porosity.
- apply by roll, thin coats of colored TECNOTOP 2C(total consumption 300 g/m² depending on the scope)

Painted surfaces

- if the existing paint is in good condition, clean the surface with a mixture of water and industrial detergent. Leave to dry.
- remove the existing paint if it does not offer good bonding conditions and eliminate any substrate in poor condition as this could hamper TECNOTOP 2C bonding.
- clean up and leave to dry
- apply PRIMER EP-1040 epoxy resin with a total consumption of 100-150 g/m² or PRIMER EPw-1070 epoxy water-based resin, with a total consumption of around 150-200 g/m² (two or more thin coats) always depending on the state of the substrate or the surface's porosity.
- apply by roll, thin coats of colored TECNOTOP 2C (total consumption 300 g/m² depending on the scope)

APPLICATION TYPES

If so required, TECNOTOP 2C can be applied with a non-slip finish as follows:

multilayer system, adding SILICA SAND

- apply an initial coat of TECNOTOP 2C, by a roll or mechanical equipment in the thin coat (consumption of 100-150 g/m²)
- spread with SILICA SAND, over the still wet resin. Consumption up to the final client or user
- wait for the drying
- remove silica sand not adhered using a broom; repair the areas without bonded sand
- apply an initial coat of TECNOTOP 2C, by a roll or mechanical equipment in the thin coat (consumption of 100 g/m²)

TECNOPLASTIC F/C system

- mix our TECNOPLASTIC F/C with the desired mixing ratio, maximum 8-9%, recommended ±7% in the Tecnotop 2C component A package.
- add the Tecnotop 2C component B in the initial mixture, beat with electrical mixing equipment at medium speed
- paving a layer of mixed TECNOTOP 2C, by roller and made in thin layers (consumption approximately 150-175 g/m²).
- if necessary, apply a second final coat of TECNOTOP 2C without mixing with TECNOPLASTIC F/C. The system is also certified to comply with the ENV 12633:2003, according to its dosage (consult our technical department).

Notes:

- Consult in all cases the waiting times, drying time, singular points treatment, conditions of application of all the products through the technical data sheets of each product, the technical handbook of application of TECNOCOAT, or consult our technical department.
- For other types of supports/substrates, for further information on the execution application procedure, for any additional questions, please, consult the technical data sheets (TDS) of these products, or our technical department.
- These guidelines are valid although they can be modified, according to the situation of the supports, conditioning of the bearing structures of the elements to be waterproofed, external climatology or situation at the time of application

COMPLEMENTARY PRODUCTS

TECNOTOP 2C 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 ±1:4, or calcium carbonate in ratio ±1:2, this is used to fill in depressions in concrete surfaces, rapidly providing a firm and fast drying even base.

- PRIMER PU-1050 |PRIMER EP-1040 | PRIMER EPw-1070 |PRIMER PUc-1050 |PRIMER PU-1000 |PRIMER WET | PRIMER EP-1020: these several resins are 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 specifications). Consumption may vary depending on the type of support, nature, or surface texture. Consult the technical specifications of each product or our technical department
- TECNOPLASTIC F/C: this plastic powder, once mixed with TECNOTOP 2C forms a rough surface, conforming even to norm ENV 12633:2003 (floors slipperiness), to achieve Class 3 (>45 slip resistance), depending on dosage (consult our technical department).
- TECNOBAND 100: the cold bond deformable band made up of an upper layer of non-woven textile and a lower layer of viscoelastic self-adhesive coating, which together allow it to adapt to the shape of the substrate. This band is ideal when dealing with structural joints and overlapping metal materials.
- MASTIC PU: polyurethane mastic for filling joints (use together with TECNOBAND 100 when necessary).

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 or spraying use an air-purifying respirator.
- 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 (MSDS) or contact our technical department.

TECHNICAL FEATURES

PROPERTIES	VALUES
Density at 23 ºC ISO 1675	±1,20 g/cm³
Viscosity at 23ºC ISO 2555	2.000 - 2.300 cps
Density component A at 23ºC ISO 1675	1,30 g/cm³
Density component B at 23ºC ISO 1675	1,10 g/cm³
Viscosity comp. A at 23ºC ISO 2555	3.000 - 3.500 cps
Viscosity comp. B at 23ºC ISO 2555	500 - 600 cps
Solid contents ISO 1768	±71%
Mixing ratio	1:6,14
VOC(volatile organic compounds)	250/230 g/l
Pot life at 23 ºC	> 1 hour
Adherence to concrete at 23 ºC	>2 MPa
Elongation at break ISO 527-3	±35%
Drying time at 23 ºC	±2 hours
Complete cured time at 23ºc	7 days
Repaint time at 23 ºC	2~48 hours
Support temperature range	8 ºC~30 ºC
Environmental temperature range	8 ºC~ 35 ºC
Walkable(pedestrian) at 23 ºC	±24 hours
Use/service range temperature	-20 ºC~80 ºC
Application method	by roll or airless equipment
Dilution (machine application)	DESMOSOLVENT (max. 5-7%)

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

No freedom from any patents or other industrial or intellectual property rights is granted or to be inferred.

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