

# TECHNICAL INFORMATION

AUTHOR TECNOPOL TECHNICAL SERVICE

REFERENCE TECNOCOAT CP-2049

VERSION v.2

REVISION DATE 10/07/2013

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## TECNOCOAT CP-2049

### COMMENTS

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### DESCRIPTION:

The 100% and cold polyurea **TECNOCOAT CP-2049** system was developed as a single coating suitable for waterproofing, protection and sealing in general.

TECNOPOL SISTEMAS S.L. has developed an aromatic, high density polyurea, the properties, usage and characteristics of which are described below.

The polyurea **TECNOCOAT CP-2049** membrane is made up of two liquid components, isocyanates and amines, which are mixed together.

### ACCEPTED USES:

For waterproofing and protection of:

- Roofs, terraces, balconies and overhangs.
- Tanks and irrigation canals.
- To repair TECNOCOAT P-2049 applications.

### GENERAL FEATURES:

- **TECNOCOAT CP-2049** is a very sturdy and hard-wearing product that, once applied, offers great stability and durability.
- Thanks to its versatility and its drying time of between 3 and 5 seconds **TECNOCOAT CP-2049** adapts to any surface, making it the ideal product for application on uneven surfaces and in areas of any shape, whether curved or squared.
- Applying **TECNOCOAT CP-2049** saves in seals and any other kind of joins, as the finish is uniform and makes up a single layer, providing a surface with optimum maintenance and cleaning properties.
- The **TECNOCOAT CP-2049** polyurea membrane system should be applied in dry conditions avoiding the presence of humidity or 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, or our Technical Application Manual for TECNOCOAT P-2049. (TAM)
- The **TECNOCOAT CP-2049** system requires solar radiation protection (UV rays) to ensure it does not lose its properties, given that it is an aromatic membrane. Therefore, our EOTA approved system incorporates a protective varnish, TECNOTOP 2C, for use in the absence of other physical protection elements.
- The **TECNOCOAT CP-2049** system's properties enable it to bond to any surface, such as cement, concrete, polyurethane, wood, metal, etc. Furthermore, due to its resistance it can be walked on and it will accept a rough finish to make it non-slip.
- Do not create bubbles, in any thickness.
- Application by roll, do not apply with airless machine.

### COLORS:

REFERENCE	COLOR
CP-2049.T1	DARK GREY

### YIELD:

Product yield is 2 kg/m<sup>2</sup> according the kind of application, or kind of surface.



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### PRESENTATION FORMATS:

Metal tins in this format:

KIT:19 kg + 1 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:

In general, the following aspects should be dealt with prior to spraying:

- Repair the surface (fill in depressions, eliminate unevenness, eliminate any old waterproofing, etc.).
- Clean the surface or substrate, removing any dust, dirt, grease or efflorescence.

The **TECNOCOAT CP-2049** poliurea system 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 application for the most common surfaces; for other surfaces not described, please contact our technical department.

#### Concrete substrate

Any depressions or voids should be repaired using a mix (ratio of 1:1.3) of our epoxy resin PRIMER EP-1020 mixed with silica sand.

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.

Next, clean and eliminate all contaminants from the elements, such as dust or particles from the previous processes.

Apply the primer in the conditions and with the parameters indicated in the technical specifications for these products. In general, the dual component polyurethane PRIMER PU-1050 should be used.

#### Metal substrate:

Metal surfaces should be prepared using sand-blasting, in order to improve the surface's mechanical fixation properties.

Check the seals and overlaps and where necessary seal with DESMOSEAL MASILLA PU mastic or TECNOBAND 100, in combination.

For rapid and efficient cleaning of the surface use a ketone based solvent, our DILUYENTE TEC-4U Thinner.

Apply prior priming using a water-based epoxy type primer, our PRIMER EPw-1070, to improve surface levelling and bonding. Consult the technical specifications of this product.

#### Ceramic substrate:

Ceramic surfaces should not have empty joints or loose elements or parts. These should be filled with DESMOSEAL MASILLA PU mastic, complemented with TECNOBAND 100 on the joints if necessary.

For rapid and efficient cleaning of the surface use pressurised water and check that it evaporates completely. Also verify that all dust and other physical contaminants have been eliminated.

Next apply the required primer; in these cases of non-porous surfaces use the water-based epoxy PRIMER EPw-1070



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Yield can vary depending on the type and nature of the substrate and the surface texture. See the technical specifications for each product or contact our Technical Department

Always consult the waiting and drying times and application conditions for all products in the Specification Sheet for each product.

### 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 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.

### COMPLEMENTARY PRODUCTS:

The **TECNOCOAT CP-2049** 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 PU-1050- PRIMER EPw-1070-PRIMER PUc-1050: These primers 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).

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.

TECNOTOP 2CP-: Dual-component coloured aliphatic polyurethane varnish used to protect against UV rays and chlorinated water when waterproofing swimming pool, lakes and aquariums.

TECNOPLASTIC C or F: This plastic powder, once mixed with Tecnotop 2C, forms a rough surface, conforming even to norm UNE ENV 12633:2003 (floors slipperiness), to achieve Class 3 (>45 slip resistance), depending on dosage (consult our technical department ).

TECNOBAND 100: Cold bond deformable band made up of an upper layer of non-woven textile and 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.

DESMOSEAL MASILLA PU: Polyurethane mastic for filling joints (use together with Tecnoband 100 when necessary).

TIXOPOL S: Additive that provides thixotropic properties, specifically designed to be mixed with **TECNOCOAT CP-2049** to enable application on vertical surfaces.



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### PROPERTIES :

PROPERTIES	RESULT	METHODE
Density	1,15 g / cm <sup>3</sup>	ISO 527
Elongation	>500 %	ISO 527
Hardness Shore A	>85	DIN 53.505
Hardness Shore D	>35	DIN 53.505
Environmental temperature	+5 °C ~ 35°C	
Surface temperature	+3 °C ~ 30°C	
Max. environmental relative humidity	80 %	
Initial cured time	±20 ~ 25 minutes	
Total cured time	±12 hours	
Solids	VOC ZERO	
Tensile strength	>6 ~ 9 MPa ( N/mm <sup>2</sup> )	
Dilution	DESMOPOL SOLVENT ( 5 ~ 10% )	
Fire reaction	Euroclass F	

### TECHNICAL DATA :

PROPERTIES	COMPONENT A	COMPONENT B
Specific gravity ( g/cm <sup>3</sup> )	1,05	1,60
Storage	12 months max.	12 months max.
Viscosity ( cps )	7.000	800
Mix ratio – in weight	19	1

Applus<sup>+</sup>**TECNOPO** SISTEMAS