



TECNOCOAT CP-2049 - COLD POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

The cold polyurea TECNOCOAT CP-2049 is a two-component polyurea, that once applied, forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adhered to support. Suitable for waterproofing, protection and sealing in general. Due to its cold and manual application, is ideal too for repair or recoating on top of our polyurea membranes range, once these are already cured.

USES

For waterproofing and protection of:

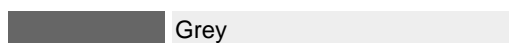
- Walkable roofs
- Terraces, balconies, and overhangs
- Metal roofs
- Asbestos roofs
- Green roof
- To repair/recoating the TECNOCOAT membranes range

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

density at 23°C	1.37±5 g/cm ³
minimum recommended thickness	± 1,5 mm
pot life at 23°C	± 20~25 min
tensile strength at 23°C	±6~8 MPa
elongation at break at 23°C	>500 %
hardness Shore A at 23°C	>85
application method	cold applied, by roll or squeeze



COLORS



Grey

GENERAL FEATURES:

- TECNOCOAT CP-2049 is a very strong and hard-wearing membrane that, once applied, offers great stability, durability, and a perfect waterproofing and seal
- Thanks to its versatility and its drying time of between 20~25 minutes 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.
- The TECNOCOAT CP-2049 system's properties enable it to bond to any surface, such as concrete, ceramic tiles, polyurethane foam, wood, metals, bituminous sheets, acrylic paints
- Furthermore, due to its resistance, it can be walked on and it will accept a rough finish to make it non-slip (according to ENV 12633:2003)
- 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 application method is by the squeegee, trowel or roll, (do not apply with the airless machine)
- It doesn't create bubbles in any thickness.
- The TECNOCOAT CP-2049 pure 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 CP-2049.
- The TECNOCOAT CP-2049 system requires solar radiation protection (UV rays) to ensure it does not lose its physical and mechanical properties, given that it is an aromatic membrane. So you have to apply our polyurethane colored aliphatic resin, TECNOTOP 2C/2CP, for use in the absence of other physical protection elements.

PACKAGING

Metal tins in this format: 19,2 kg+0,8 kg (isocyanates and amines)

SHELF LIFE

12 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 METHOD

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

- repair the surface (fill in depressions, eliminate unevenness, eliminate any old waterproofing, etc.)
- singular points preparation (perimeter, sinks / evacuations, expansion joints or structural)
- 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
- the pull-off strength of the membrane will be minimal 1,5 N/mm²(MPa)
- clean up the surface or substrate, removing any dust, dirt, grease or efflorescence.
- in case of doubt of all above, apply before in a restricted area and to check

The TECNOCOAT CP-2049 pure polyurea 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 applications 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 $\pm 1:4$) 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 up 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 two-component polyurethane PRIMER PU-1050 should be used.
- roll or squeeze application of the TECNOCOAT CP-2049 pure polyurea membrane.
- application of the polyurethane resin TECNOTOP 2C, in consumption and desired thicknesses in the case of no protection against UV rays. This application can be done by short hair roller type equipment "airless" (see the conditions of application in the product datasheet TDS)

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 MASTIC PU mastic or TECNOBAND 100, in combination.
- for rapid and efficient cleaning of the surface using a ketone-based solvent.
- apply prior priming using a 100% solids epoxy resin PRIMER EP-1040 or water-based epoxy resin PRIMER EPw-1070, to improve surface leveling and bonding. Consult the technical specifications of this product.
- apply the TECNOCOAT CP-2049 polyurea membrane.
- apply TECNOTOP 2C to protect the membrane from the UV rays

Ceramic substrate

- ceramic surfaces should not have empty joints or loose elements or parts. These should be filled with MASTIC PU mastic, complemented with TECNOBAND 100 on the joints if necessary.
- for rapid and efficient cleaning of the surface use pressurized 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.
- apply the TECNOCOAT CP-2049 polyurea membrane.
- apply TECNOTOP 2C to protect the membrane from the UV rays

Sheets substrate

The existing sheet surfaces (bitumen, EPDM, PVC ...) must not show surface areas raised or not in good condition. He withdrew in poor areas.

- There shall be cleaned with water, ensuring complete evaporation.
- Next, apply the required primer; in these cases of non-porous surfaces use the water-based epoxy PRIMER EPw-1070.
- Apply the TECNOCOAT CP-2049 polyurea membrane.
- Apply TECNOTOP 2C to protect the membrane from the UV rays

Always consult the waiting and drying times and application conditions for all products in the TDS of each one.

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.

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 or spraying use an air-purifying respirator.



- Skin protection: Use rubber gloves, remove them 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.

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 1:4, 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/PRIMER PU-1000: 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).
- PRIMER EP-1040: 100% solid content, epoxy resin, for metal and ceramic surfaces
- TECNOTOP 2C-: Dual-component colored aliphatic polyurethane resin, used to protect roofs and floors or ground against UV rays when there is no other protection.
- TECNOTOP 2CP: Dual-component colored aliphatic polyurethane resin used to protect against UV rays and chlorinated water when waterproofing swimming pools, lakes, and aquariums.
- TECNOTOP S-3000: two-component, aliphatic, colored, cold polyurea resin for protection against UV rays, in situations of decks or floors without additional protection. Excellent for vehicular cover applications, quick-drying, and setting up.
- TECNOPLASTIC F/C: This plastic powder, once mixed with TECNOTOP 2C/2CP, forms a rough surface, conforming even to European approval 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).



MEMBRANE PROPERTIES

PROPERTIES	RESULT
Density at 23 °C ISO 1675	1.35±5 g/cm ³
Viscosity at 23°C ISO 2555	3.000 ~ 3.500 cps
Density component A at 23 °C ISO 1675	1.42 g/cm ³
Density component B at 23 °C ISO 1675	1.10 g/cm ³
Viscosity component A at 23°C ISO 2555	650~ 900 cps
Viscosity component B at 23°C ISO 2555	4.000 ~ 4.200 cps
Cured membrane viscosity at 23 °C ISO 2555	2.500 ~ 3.500 cps
Elongation at break at 23 °C ISO 527-3	>500 %
Tensile strength at 23°C ISO 527-3	>6~8 MPa
Tear strength ISO 34-1	3,5 N/mm
Hardness Shore A at 23°C DIN 53.505	>85
Hardness Shore D at 23°C DIN 53.505	>35
Environmental temperature for application	+5 °C ~ 35 °C
Surface temperature for application	+3 °C ~ 30 °C
Max. environmental relative humidity	80 %
Pot life at 23 °C	±20~25 minutes
Initial dry time at 23°C	1,5 hours
Total cured time at 23 °C	±12 hours
Solids content ISO 1768	>85%
VOC content	140 g/l comp. A + 0 g/l comp. B
Adherence to concrete	>2,1 MPa
Fire reaction	NPA
Anti roots	ABLE (internal test)

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

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