



TECNOCOAT P-2049 AS - ANTISTATIC PURE POLYUREA MEMBRANE FOR FLOORING AND ROOFING

TECNOCOAT P-2049 AS is a two-component, sprayable, aromatic coating suitable for waterproofing, protection, and sealing. It's made up of two high reactive liquid components, isocyanates and amines, mixed using our specific spray equipment (TC2049 <http://spray-equipment.tecnopolgroup.com/>) or similar, to form a solid, continuous, watertight and waterproof, seamless, high-density pure polyurea membrane, with mechanical qualities **especially for antistatic situations.**



USES

For waterproofing and protection surfaces (flooring) needing antistatic properties:

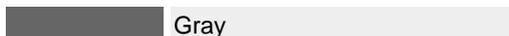
- Operating rooms (hospitals) or pharmaceutical areas
- Storage of flammable and explosive coating
- Electronic or computer rooms with highly sensitive equipment

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

recommended minimum thickness	±2,00mm
tack-free time	±3~5 sec
tensile strength	±20 MPa
elongation at break	> 350%
hardness Shore A	>90
VOC(volatile organic compounds)	0
application method	spray equipment



COLORS



GENERAL FEATURES

- TECNOCOAT P-2049 AS is a very sturdy and hard-wearing product that, once applied, offers great stability and durability.
- the application and training are done by our spray equipment TC2049 (spray-equipment.tecnopolgroup.com) or



similar

- thanks to its versatility and its drying time of between 3 and 5 seconds TECNOCOAT P-2049 EL adapts to any surface, making it the ideal product for application on uneven surfaces and in areas of any shape, whether curved or squared.
- it 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.
- recommended consumption is approximately 2,2 kg/sqm (at 2,00 mm dry film thickness). This data could vary depending on the type of application, weather conditions, or substrates' nature.
- it 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 in the TDS.
- the 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 (according to ENV 12633:2003)
- his properties allow it to adhere to any surface such as concrete, ceramic tiles, metal, plywood. In any case or material, the surface must be consistent, firm, clean, and dry when the products are applied. Recommended applying directly on the concrete deck. Ponding water admitted.
- free from harmful VOC compounds, therefore, it does not hurt the ozone layer (VOC's zero). It's 100% recyclable by mechanical means friendly to the environment; no gas collection for recycling and/or destruction is required; it doesn't emit substance to the environment once installed.

PACKAGING

Metal drums of 225 kg each component (B side: amines and A side: isocyanates).

SHELF LIFE

12 months at temperatures between 5°C to 35°C, provided it is stored in a dry place, keep away from direct sunlight, extreme heat, cold, or moisture. Once the tin has been opened, the product must be used. Once opening drum, B side must be agitated mechanically before inserting the transfer pumps and use.

APPLICATION METHOD

In general, you should take the following factors:

- repair the surface (fill in depressions, eliminate unevenness, eliminate any old waterproofing, etc.)
- singular points preparation(perimeter, sinks / evacuations, 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
- the pull-off strength of the membrane will be minimal 1, 5 MPa
- in case of doubt of all above, apply before in a restricted area and to check

The TECNOCOAT P-2049 AS 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 latencies or release agents should be eliminated and an open-pore surface achieved by grit blasting, milling, or sanding.
 - 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.
 - Installation of the conductive layer, consisting of a conductive copper ribbon: At the wall/floor junctions, bond conductive copper ribbon in strips of maximum 1.0 m in length at intervals of 5 ~ 10 m, dependent on the room geometry. Note: Connect the copper strips to earth on-site (potential equalization). The bleeder resistance must be < 104 Ohm.
 - apply the TECNOCOAT P-2049 AS pure polyurea membrane.

Notes:

- Consult in all cases the waiting times, drying time, singular points treatment, conditions of applying all the products through the technical data sheets of each product, the technical guidelines, or consulting 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.

REPAIR AND OVERLAPS PROCESSES

REPAIR

In cases where the membrane repair by accidental causes, or assembly procedures not covered installations, shall be as follows:

- cut, removal of the affected area and/or damaged surface
- sanding this area extending about 20~30 cm. around the perimeter, for overlapping security
- cleaning (vacuuming) of waste generated (powder, dust...); if it's possible don't use water, and if used, support humidity value; ketones applicability based solvents for reducing this type of surface cleaning
- apply a thin layer (100-150 g/sqm) of polyurethane resin PRIMER PU-1050, PRIMER EPw-1070
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply TECNOCOAT P-2049 AS

OVERLAPS

In cases has been exceeded recoat time (24~48 hours), so the waiting time between jobs is prolonged, proceed as follows:

- sanding strip longitudinal overlap of about 20~30 cm. wide
- cleaning (vacuuming) of waste generated (powder, dust...) or existing dust; if it's possible, do not use water, and if it's used, check the support humidity value; ketones applicability based solvents for conducting this type of surface cleaning
- apply a thin layer (100-150 g/sqm) of polyurethane resin PRIMER PU-1050, PRIMER EPw-1070
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply TECNOCOAT P-2049 AS

APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

For the formation, it is necessary to mix the two initial liquid components, isocyanates and amines by our spray equipment TC2049 (spray-equipment.tecnopolgroup.com) or similar (proper maintenance and cleaning it is



recommended). The general parameters for this material will be the following:

- Heater isocyanate temperature: 70-75 °C
- Heater amines temperature: 70-75 °C
- Hose temperature: ± 70 °C
- Working pressure: 2.500 - 3.000 psi
- Recommended Mixing chamber: GU-07008-1 or GU-07008-2 (*use mechanical purge chamber*)

HEALTH AND SAFETY

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)

COMPLEMENTARY PRODUCTS

The TECNOCOAT P-2049AS 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 $\pm 1:4$, or calcium carbonate in ratio $\pm 1:2$, this is used to fill in depressions in concrete surfaces, rapidly providing a firm and fast drying even base.
- PRIMER EPw-1070: this epoxy resin is applied to 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 this product or 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).



TECHNICAL DATA OF COMPONENTS

PROPERTIES	COMPONENT A	COMPONENT B*
Density ISO 1675	1,11±0,05 g/cm ³	1,09 ±0,05 g/cm ³
Viscosity (at 12 rpm) ISO 2555	850± 50 cps	1.100± 50 cps
Mix ratio – in weight	100	102
Mix ratio – in volume	100	100

* Data for component B pigmented in gray. For other colorations or neutral, consult the official COA issued by Tecnopol (Certificate of Analysis for each batch delivered). Results were performed in the laboratory at 23°C and 50% RH, under controllable conditions.

MEMBRANE PROPERTIES

PROPERTIES	VALUES
Density ISO 1675	±1,10 ± 0,05 g/cm ³
Tack-free time	3-5 sec
Cured time	±12 hours
Elongation at break ISO 527-3	>350%
Tensile Strength ISO 527-3	>20 MPa
Hardness Shore A/D DIN 53.505	>90 / >50
Medium electrical resistance EN 1081	8,8 x 10 ⁶ ohm
Environmental and support application temperature range	3 °C~40 °C
Max. relative humidity	85%
Walkable / Vehicular	±3 hours / ±12 hours
Resistance to water vapor diffusion EN 1931	μ=2.279
Water vapor diffusion ISO 7783	14 g/(sqm/day)
Construction element slope	zero slope, ponding water admitted
Fire reaction	NPD
Solids content ISO 1768	100%
VOC(volatile organic compound)	0
Concrete adherence	>2 MPa

Results were performed in the laboratory at 23°C and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. The customer assumes full responsibility for quality control, testing, and determination of the suitability of products for its intended application or use.

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