



**TECNOCOAT P-2049 LV - LOW VISCOSITY
POLYUREA MEMBRANE 100% PURE FOR
WATERPROOFING AND COATING**

The 100% pure polyurea TECNOCOAT P-2049 LV membrane was developed as a coating suitable for waterproofing, protection and sealing in general. The pure polyurea TECNOCOAT P-2049 LV membrane is made up of two high reactive liquid components, isocyanates and amines, which are mixed together using spray equipment (TC2049 <http://spray-equipment.tecnopolgroup.com/>), to form an aromatic, continuous, without joints, high density, solid and elastic pure polyurea, for **protecting the polyurethane foam TECNOFOAM (SPF)**



USES

For waterproofing and protection of:



- Protection and coating of polyurethane foam (SPF) TECNOFOAM
- concrete deck or ceramic tiles floors on terraces, balconies...

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

recommended minimum thickness	±1,5 mm
tack-free time at 23°C	±5 secs
tensile strength at 23°C	±15 MPa
elongation at break at 23°C	>250 %
hardness Shore A at 23°C	>85
application method	medium pressure spray equipment
VOC(volatile organic compounds)	0



COLORS

	Gray
	Red



GENERAL FEATURES

- TECNOCOAT P-2049 LV is a very strong 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. Also using medium pressure machines.
- thanks to its versatility and its drying time of ± 15 seconds TECNOCOAT P-2049 LV 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 is free from harmful to the ozone layer, so do not promote the greenhouse effect (NOT contain HFCs, HCFCs, VOCs, etc ...).
- TECNOCOAT P-2049 LV system is 100% recyclable by mechanical means friendly to the environment
- no gas collection for recycling and/or destruction is required
- it does not emit any substance to the environment once installed.
- applying TECNOCOAT P-2049 LV 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.
- TECNOCOAT P-2049 LV 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.
- 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 the technical handbook of application of TECNOCOAT.
- TECNOCOAT P-2049 LV 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,

PACKAGING

Metal drums of 225 kg each component (B side: amines and A side: isocyanates). Agitate B side (AMINES) before inserting the transfer pump and use.

Metal drums of 60 kg each component (B side: amines and A side: isocyanates). Agitate B side (AMINES) before inserting the transfer pump and use.

SHELF LIVE

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. Once opening drum, slightly mix mechanically component B (amines), for good mixing of their components.

APPLICATION METHOD

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

- Clean the surface or substrate (polyurethane foam), removing any dust, dirt, grease or efflorescence.

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

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(50-100 g/m²) of polyurethane resin PRIMER PU-1000
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply TECNOCOAT P-2049 LV, TECNOCOAT CP-2049 or DESMOPOL
- apply TECNOTOP S-3000/2C/2CP, 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)

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(50-100 g/m²) of polyurethane resin PRIMER PU-1000.
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply TECNOCOAT P-2049 LV, TECNOCOAT CP-2049 or DESMOPOL
- apply TECNOTOP S-3000/2C/2CP, 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)

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: 60-65 °C
- Heater amines temperature:60-65°C
- Hose temperature:±65°C



- Pressure: 2.000 to 2.700 psi (138 to 186 bar)
- Recommended mixing chamber: GU-07008-1

These temperature and pressure parameters have to be valued, ratified or be varied by the applicator, depending on the conditions of each climate zone, weather situation or projection equipment specifications.

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 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.
- The 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 (MSDS) of the product.

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 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 this product or our technical department.
- 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. (according to ETA 10/0121 and BBA 16/5340)
- 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.
- 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).



PROPERTIES

PROPERTIES	RESULTS
Density at 23 °C ISO 1675	1,15 g/cm ³
Isocyanate viscosity at 23°C UNE-EN ISO 2555	±900 cps
Amines viscosity at 23°C UNE-EN ISO 2555	±650 cps
Initial dry time at 23°C	±5 secs
Cured time at 23°C	±12 hours
Elongation at break at 23 °C ISO 527-3	>250%
Tensile Strength at 23 °C ISO 527-3	>13 MPa
Max. tensile strength ISO 37 at 7 days internal test	22,3 MPa
Max. elongation ISO 37 at 7 days internal test	400%
Modulus 100% ISO 37 at 7 days internal test	8,6 MPa
Hardness Shore A at 23°C DIN 53.505	85~90
Hardness Shore D at 23°C DIN 53.505	45~50
Surface temperatures	-20 °C ~ 90 °C
Fire reaction	NPA
VOC (volatile organic compounds)	0 (solids content:100%)
Concrete adhesion	>2 MPa

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

TECHNICAL DATA OF COMPONENTS

PROPERTIES	COMPONENT A	COMPONENT B
Specific gravity at 23°C ISO 1675	1,11±5%/cm ³	1,09-1,12 ±5%/cm ³ *
Viscosity (S63, 30 rpm at 23 °C) ISO 2555	900±50 cps	650±50 cps *
Mix ratio – in weight	100	102
Mix ratio – in volume	100	100

*: these data only in a neutral color; for other colors, this data may vary, please check COA

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