



PURPOL-D

Aromatic polyurethane membrane.

Single-component, aromatic, solvent-based, moisture-curing polyurethane that produces a continuous, elastic membrane,

DESCRIPTION

Completely adhered to the substrate, without joints or overlaps, 100% watertight and impermeable, whose properties make it excellent for application on all types of surfaces, whether in new construction or rehabilitation. It is applied manually with a short-haired roller, brush, notched trowel or, exceptionally, by means of specific electrical equipment.

RECOMMENDED USES

Flat walkable roofs, terraces, balconies and pitched roofs Inverted roofs (insulation underneath)
Concrete slabs and structural floors, as well as foundations and walls
Swimming pools, ponds, aquariums, including marine environments
Landscaped roofs (ETE 10/0121 and BBA 16/5340)
Inclined or flat roofs of corrugated metal sheets, fiber cement, asbestos or similar (EPS polystyrene insulation board system).
Protection of polyurethane foam thermal insulation systems.

NOTE: consult our technical department for application on other types of substrates or situations.

TECHNICAL CHARACTERISTICS

- PURPOL-D is a highly elastic and wear resistant membrane that once applied offers great stability, durability and certified watertightness (ETE 10/0121 and BBA 16/5340).
- The waterproofing system has EOTA certification based on guide 005 for use in roof waterproofing ETE 10/0121, with a useful life of 25 years W3, for a thickness of 1.2 mm, even on zero slope.

- It has the evaluation for the British market BBA 16/5340, for waterproofing walkable roofs and terraces, for a minimum thickness of 1.2 mm, even on zero slope.
- The versatility of **PURPOL-D** gives it the possibility of adapting to a multitude of surfaces and different materials, it is the ideal product to be applied in irregular areas with shapes of any nature, whether curved or square.
- Surface reinforcement is not necessary, only at singular points of encounters with other construction elements.
- Application in landscaped areas, it has the European certificate of root resistance according to EN 13948 (ETE 10/0121 and BBA 16/5340).
- The traditional application is made by applying successive coats of maximum thickness of 0.7 mm each (1.2 kg/m²). Drying time between coats is approximately 4-6 hours.
- The PURPOL membrane can also be applied in a single layer of desired thickness (minimum recommended 1.5 mm) by mixing it with reactivated, which increases its physical-mechanical characteristics, eliminates the appearance of internal bubbles, obtaining a completely solid sheet, reducing the drying time which increases the speed of execution since it can be applied not only with a roller but also with metallic or rubber spatulas, reducing the direct costs of application. Do not use spraying equipment when making this type of application.
- The application of the system must be carried out in conditions of no presence of humidity in the substrate or water coming from the substrate or backfill, either at the moment of the application or a posteriori (pressure due to water table...). In the case of existing humidity in the substrate at the time of application, consult the technical data sheets of our primers where the humidity resistance ranges are specified.
- is an aromatic membrane and needs protection to maintain its physical-mechanical properties. It is for this reason that the system evaluated by the different European evaluations (ETE 10/0121, BBA 16/5340), has an aliphatic polyurethane resin, PUR FLEX 70 in cases where this protection does not exist with other physical elements. PUR M50 or PUR WATER can also be applied. With the application of PURPOL-D, joints and any type of union are saved, since the finish is uniform and in one piece, providing a surface with optimal maintenance and cleaning.
- The properties of the PURPOL-D system allow it to adhere to any surface such as cement, concrete, polyurethane foam, butyl or asphalt sheets, wood, metal, etc...
- Due to its resistance, it can be walkable and anti-skidding by making a rough finish through the addition of solid particles (silica quartz and colored quartz).
- Ceramic paving can be placed on the upper part. In this case, it is convenient to apply a thin layer of PR SR15 with an endowment of (100-120 g/m²), saturation of SILICA QUARTZ with an endowment of 1,5Kg m² to improve the mechanical anchorage.
- Consult our technical department, the Technical Guides of systems or the Application Methodologies, the characteristics of the proposed system according to the use, situation or type of application.

ADVANTAGES

- Self-leveling.
- Fast drying in temperatures from 5° C to 25 C.°
- Easy application (notched trowel, rubber squeegee, roller or airless spray gun).
- Once applied, it creates a continuous membrane without filtration.
- Water resistant.
- It maintains its mechanical properties between -40°C and +90°C.
- Resistant to ice.
- Completely adherent.

PRESENTATION

PURPOL-D is available in two formats:

Metal drum: 25 kg

STORAGE CONDITIONS

12 months.

12 months from the date of manufacture, in their original containers, well closed and not deteriorated. Keep in a dry place at temperatures between +5°C and +30°C.

CONSUMPTION

A minimum total applied thickness of 1.5 mm is recommended, with an approximate total consumption of 2 kg/m² (dry film thickness); applied in one or several coats according to method. These data may vary according to substrate or weather conditions.

Multilayer	2 mm to 1.6 kg/m ² pigmented quartz saturation.
Self-leveling	1,5 mm to 2, kg/m ²
Painted	0.500 kg per m ² per coat with a minimum of 3 coats. Recommended for roller application add 2% to -% of polyurethane thinner.

TECHNICAL DATA OF THE COMPONENTS

		COMPONENT A	COMPONENT
APPEARANCE		RAL	Red Gray White
DENSITY (20°C)		1.35 kg/l	1.35 kg/l
RELATIONSHIP Drum Comp A			
	With pigment	25 kg	

Paint/ Roller applied.

Apply with the help of a short nap roller in at least three successive coats according to drying times. The approximate consumption in this type of application is 0.500 kg/m²/per coat, depending on the roughness of the substrate.

Multilayer:

PURPOL-D by means of demented flame. Consumption approx.: 1.5 kg /m². Then the surface is saturated with silica quartz. With this system an anti-skid surface is obtained in order to provide the system with a degree of resistance to slipping, thus reinforcing the system to impacts, compression and screed to 1.5mm. Eliminate the excess aggregate by vacuuming. Subsequent light sanding of the surface and then vacuum the remains. The finishing can be by means of a rubber rasta topping it with an approximate consumption: 0,500lg kg/m² . Depending on the roughness of the support...

Self-leveling:

Pour PURPOL-on the support, distributing it then with a 4mm notched trowel with which it will be possible to control thickness and consumption. After 5/8 minutes it is necessary to pass a spiked roller with which we will facilitate the exit of air from the interior of the material. The minimum thickness for the material to be able to self-level will be 1mm. Approx. consumption: 2 kg/m². Thickness of 1.5 mm.

PROPERTIES MEMBRANE

Tensile strength	3 - 4 MPa
Loss of Stickiness Time*.	Approx 2-3 hours
Curing time 20 C°	3-4 hours
Membrane density	1.35 +- 0.05 g/l
Solids content	100%
Elongation at break	400 - 600 %
Breaking strength	150 kg/2
Shore hardness (7 Days).	90

CONDITIONS OF APPLICATION

Temperature of the support	From 5°C to +30°C
Ambient temperature	From 5°C to +25°C
Moisture Content of the Support	≤ 6% parts by weight in moisture content. Must be free of moisture by capillary rise according to ASTM standard (polyethylene film).
Dew point	Watch out for condensation! The substrate and the uncured membrane must be at least 3°C above the dew point to reduce the risk of condensation and to avoid deterioration of the membrane finish.

These values may vary according to the application, climatic and substrate conditions.

The primers to be used will depend on the type and condition of the substrate. Support temperatures and ambient temperature. Consult with our technical department.

APPLICATION

PURPOL-D can be applied on multiple substrates, which must be properly treated to optimize the adhesive properties of the membrane. In general, the following factors should be considered prior to application:

- Repair of surfaces (filling of cracks, elimination of irregularities, removal of old existing waterproofing).
- Works in singular points (encounters with walls, drains/evacuations, expansion or structural joints).
- Cleaning of the support, eliminating dust, dirt, grease or existing efflorescence.
- The substrate must be cohesive.

In case of doubt, it is recommended to apply in a limited area to check the correct application. To carry out the application, the two components should be carefully mixed in the proportions supplied and homogenized with a low speed stirrer. Start the application immediately, since the reaction between both components begins to take place from the moment of mixing and the application time should not exceed 20 minutes to obtain the correct leveling properties.

It is not recommended to split the containers. In conditions of high relative humidity and condensation or water spills before the product cures, a carbonation of the product (bleaching) may occur. This effect is aesthetic and does not alter the general properties of the product.

Before the application of PURPOL-D, the primer coat, if applied, must be allowed to cure completely. Areas that may be damaged (door frames) should be protected with masking tape.

It is recommended to apply PURPOL-D in a 1.5 mm thick layer.

Method: Pouring and spreading with notched trowel, roller, rubber duster and application with airless spray gun with a dilution of 10%.

Thickness: 1 Kg / m² is equivalent to 1 mm of thickness.

SUPPORT TREATMENT

Cementitious substrates

New concrete should be cured for at least 28 days and should have a tensile strength of $\geq 1.5 \text{ N/mm}^2$. Cementitious or mineral-based substrates should be prepared mechanically using abrasive cleaning or scarifying equipment to remove the surface slurry layer and to achieve an open textured surface. Any loose particles and weak concrete should be removed and defects such as coking and gravel nests should be left fully visible. Repairs to the substrate, joint filling, coking, gravel nests and surface leveling should be carried out with appropriate products.

Any sharp elements should be removed, e.g. by sanding. Outgassing is a natural phenomenon of concrete that can cause bubbles in subsequent coats to be applied.

Moisture content, air entrapped in the concrete and surface finish should be carefully checked before beginning any application work. Installation of the membrane when the temperature is falling or stable can reduce outgassing. Therefore, it is generally beneficial to apply the embedded layer in the afternoon or evening. Prime the substrate and always use a reinforced system.

New surfaces

Wait for the cement to cure completely (approximately 1 month). The plaster must be dry, clean and free of dust, grease, mold, algae and other contaminants. Mechanical treatment by means of machine SAT diamond disc and subsequent vacuuming. Repair of fissures, cracks and crazing using thixotropic epoxy resin PR EPOX 100S. Apply a coat of epoxy primer PR EPOX 100S on inconsistent and absorbent or very alkaline surfaces. In case of efflorescence or saltpeter treat with diluted acid solution, rinse with plenty of water and let dry.

It is essential to regulate the porosity of the pavement so that it is sufficiently adequate to favor the penetration and anchorage of the paint, for this the best results are obtained through mechanical methods since in addition to regulating the porosity of the support they eliminate any type of substance or unwanted foreign body.

If a mechanical treatment is not possible, at least a chemical treatment must be carried out: elimination of foreign or unwanted agents by using diluted hydrochloric acid and then removing the remains of acid with plenty of water; finally allowing the substrate to dry completely and proceed to normal painting.

Painted surfaces

If the paint is well adhered, perform a sanding with a rotary machine and subsequent vacuuming to remove loose particles, clean and degrease.

Sand and vacuum on satin surfaces

Apply previously a coat of water-based epoxy primer, PR EPOXW 20, as a bonding bridge on substrates with a relative residual humidity of 3 to 6% on the substrate.

In substrates with residual humidity of less than 3% apply as a primer PR EPOX -100S 100% solids colorless primer with an allowance per m² of 0.200kg.

Stands in poor condition

If the paint is old or poorly adhered with the presence of defects such as: chalking, blistering, chipping, cracking, etc..., remove the remains mechanically, repair cracks or flaws and apply a coat of PR EPOX -100S 100% solids colorless primer.

Metal surfaces

Pretreat with zinc phosphate epoxy primer (PR EPOX 40). Application conditions:

- Application: Brush, roller or airless.
- Working temperature: Minimum: 10°C. Maximum: 60°C.
- Substrate temperature: 2 to 3°C above dew point. Relative humidity: - Less than 80%.

CONDITIONS OF APPLICATION

	+10°C	24 hours	48 hours
	+20°C	12 hours	
	+30°C	8 hours	

	Before applying the PURPOL-D over the primer, wait until it has a mordant touch. Make sure that all dust and other contaminants have been removed. Times are approximate and may be affected by changes in environmental conditions, in particular temperature and relative humidity.
	This product should only be applied by experienced professionals. The technical properties and performance of PURPOL-D are affected by exposure to UV radiation. Note: always perform a test before.

CURING CONDITIONS

	Times are approximate and may be affected by environmental conditions, especially temperature and relative humidity.
	All technical data given in this Product Data Sheet are based on laboratory tests. Actual measurements of this data may vary due to circumstances beyond our control.
	The operation of this product may vary from country to country. Refer to the local Data Sheet for the exact description of the fields of application.
	For any information concerning safety issues in the use, handling, storage and disposal of chemical residues, users should refer to the most recent version of the product MSDS, which contains physical, ecological, toxicological and other safety-related data.

IMPORTANT: In high humidity conditions or below 10°C, DO NOT HARDEN. Do not apply the paint on very hot surfaces due to sun exposure.

Surfaces in general must be clean, dry and free of grease, dust and rust. Soil should be clean, dry and well set (28 days). Residual soil moisture less than 6%.

Preferably with roughness to improve adherence.

COLD MATERIALS

When dealing with epoxy resins and urethanes, cold material will result in slower than normal cure times and may affect their physical properties once cured. Cold materials are more difficult to mix, unfold and level. Before materials are applied in cold temperatures, they should be stored in a heated environment or in a heated storage container at the ideal temperature indicated on the Product Data Sheet. The longer the materials can be stored in a heated environment, the better they will perform.

COLD AMBIENT TEMPERATURES

This condition will also cause slower than normal cure of epoxy and urethane materials. It will also make them more difficult to unfold and level. It may cause bubbling/blistering problems because the viscosity of the epoxy has increased due to the cooler temperatures, preventing vapor trapped in the substrate from escaping. Prior to application, the temperature in the application area should be at normal service temperature for a minimum of 48 hours. If necessary, use forced heat by means of portable heaters.

COLD SURFACE TEMPERATURES

Concrete surfaces that have a temperature of 10° C. Lower will drastically slow down the normal curing of epoxies and urethanes and can reduce cure up to 6 hours or more. It can also affect the physical properties of cured membranes, making some epoxies flexible. Cold substrate temperatures can prevent epoxies from "wetting" or penetrating the concrete surface, causing adhesion problems. Prior to application, service temperatures should be at normal operating conditions, a minimum of 15°C, for a minimum of 48 hours. If this cannot be achieved, the use of forced heat may be necessary.

BASEMENTS, POORLY VENTILATED SPACES

In poorly ventilated spaces or basements, the relative humidity due to condensation reaches levels at which the products suffer various consequences on the finishes. From shading due to condensation in the environment to the curing of the same.

RECOMMENDATIONS

1. Air renewal with ventilation equipment before, during application and in the curing processes of the materials.
2. Use heat cannon covering the whole area. It will help us to eliminate humidities, reaching a suitable temperature of the support and the environment for the execution of the products.
3. Do not apply in any case epoxy, polyurethane, acrylic, below 10°C.
4. The substrate and ambient temperature must be at least 3°C above the dew point during application.

HOT SUBSTRATE / AND OR MATERIAL

Supports exposed to high temperatures exceeding 26°C directly affect the physical and chemical properties of the materials. Direct effects on the application since, depending on their nature, the materials will have a cause and effect such as: cracking, micro-cracking, orange peel, craking, accelerated drying with the loss of their properties, color changes, loss of leveling, etc...

RECOMMENDATIONS

- Do not apply in ambient temperatures above 25°C.
- Do not apply outdoors in the warm hours of the day.
- Do not expose the materials to high temperatures and/or storage exposed to the sun. Do not apply if the substrate temperature is above 30°C.

HEALTH AND ENVIRONMENTAL SAFETY

In general avoid contact with eyes and skin, wear gloves, goggles and appropriate clothing. Keep out of reach of children. Use only in well-ventilated areas. Do not flush waste down the drain. Keep container tightly closed and in a suitable place. Ensure proper transport of the product; prevent any accident or incident that may occur during transport due to breakage or deterioration of the container. Keep the container in a safe place and in the correct position. Do not use or store the product in extreme temperature conditions. You should always take into account the legislation in force concerning the Environment, Hygiene, Health and Safety at work. For further information, it is essential to read the SAFETY DATA SHEET of the product.

It is advisable to periodically check the update status of this Technical Data Sheet.

Pinturas Pinay assures the conformity of its products with the specifications given in the technical data sheets. The technical advice given by Pinturas Pinay, before or after delivery of the products, are merely indicative and given in good faith and constitute its best knowledge, according to the current state of the art, but without guarantee on the final results as these depend on conditions of use that are beyond our control. All our sales are subject to our general conditions of sale, which we advise you to read.

See labeling and Material Safety Data Sheet.



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