

# AQUAPRO<sup>®</sup>

## PY 02



La polyurée AQUAPRO PY 02 a été développée comme revêtement unique et dédiée à l'étanchéité, la protection et le scellage en général. La membrane hybride AQUAPRO PY 02 est obtenue à partir du mélange de deux composants liquides, isocyanates et amines, à l'aide d'un équipement de projection bi-composants.

### UTILISATIONS

Pour l'étanchéité et la protection de:

- Les toits en pente, toitures-terrasses, balcons et surplombs.
- Les murs de soutènements et fondation
- Les toits
- Pour protéger la mousse PU projetée (Système de mousse polyuréthane, pour l'isolation thermique( densité appliquée  $\pm 50 \text{ kg/m}^3$ ))
- Les toitures fibrociment

Épaisseur recommandée	$\pm 2 \text{ mm}$
Sec au touché	$\pm 5-7 \text{ secondes}$
Résistance à la traction	$\pm 19 \text{ MPa}$
Allongation at 23°C	>380%
Dureté shore A	>85
Méthode d'application	Unité de dosage: ex, Reactor
VOC	zero

### GENERAL FEATURES

- AQUAPRO PY 02 is a hard-wearing product that; once applied, offers great stability and durability.
- Thanks to its versatility and its drying time of between 4 and 6 seconds AQUAPRO PY 02 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 AQUAPRO PY 02 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.

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## PY 02



- The AQUAPRO PY 02 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,
- It requires solar radiation protection (UV rays) to ensure it does not lose its properties, given that it is an aromatic membrane. So you can apply a protective polyurethane resin AQUAPRO COATING UV 02 over, for use in the absence of other physical protection elements.
- AQUAPRO PY 02 is immune to temperature changes of between -20° and +120°, conserving its elastic properties without becoming cracked or soft.
- The fast reaction upon application provides great stability in a few seconds and it may be walked on and guarantees waterproofing in less than 3 hours. This polyurea reaches its optimum conditions after approximately 24 hours.
- The AQUAPRO PY 02 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

### PACKAGING

Metal drums of 225 kg each component

### 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. Once opening drum, slightly mix mechanically component B (amines and polyol), for good mixing of the pigment.

### APPLICATION METHOD

For the formation of the solid membrane AQUAPRO PY 02, it is necessary to mix the two initial liquid components through a specialized reactor equipment. (Proper maintenance and cleaning it is recommended).

- 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 minima 1,5 N/mm<sup>2</sup> (MPa)

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## PY 02



- in case of doubt of all above, apply before in a restricted area and to check

The AQUAPRO PY 02 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 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  $\pm 1:4$ ) of our epoxy resin AQUAPRO PRIMER EP 02 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 AQUAPRO PRIMER PU 01 should be used.
- apply the AQUAPRO PY 02 polyurea membrane
- application of the polyurethane resin AQUAPRO COATING UV 02, 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 data sheet 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 or bande de soutien et renforcement pour les systèmes d'étanchéité liquide, in combination.
- for rapid and efficient cleaning of the surface use a ketene based solvent.
- apply prior priming using a water-based epoxy type primer, our AQUAPRO PRIMER EPw 02, to improve surface leveling and bonding. Consult the technical specifications of this product.
- apply the AQUAPRO PY 02 polyurea membrane.

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## PY 02



- application of the polyurethane resin AQUAPRO COATING UV 02, 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 data sheet TDS)

### Ceramic substrate

- ceramic surfaces should not have empty joints or loose elements or parts. These should be filled with AQUAPRO SEAL PU 01, mastic polyuréthane mono-composant, complemented with Bande de soutien et renforcement pour les systèmes d'étanchéité liquide 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 AQUAPRO PRIMER EPw 02.
- apply the AQUAPRO PY 02 polyurea membrane.
- application of the polyurethane resin AQUAPRO COATING UV 02, 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 data sheet TDS)

### 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 AQUAPRO PRIMER EPw 02.
- apply the AQUAPRO PY 02 polyurea membrane.

Always consult the waiting and drying times and application conditions for all products in the Specification Sheets(TDS or MSDS) for each product.

### APPLICATION REQUIREMENTS (REACTOR EQUIPMENT)

For the formation of the solid membrane AQUAPRO PY 02, it is necessary to mix the two initial liquid components, isocyanates and amines through a specialized reactor equipment. (Proper maintenance and cleaning it is recommended).

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**PY 02**

- Heater isocyanate temperature:  $\pm 65$  °C
- Heater amines temperature:  $\pm 65$  °C
- Hose temperature:  $\pm 65$  °C
- Pressure: 2.700 psi
- Recommended Mixing chamber: AR 2929 / AR3737

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 as 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 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.

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### COMPONENTS TECHNICAL DATA

PROPERTIES	COMPONENT A	COMPONENT B
Specific gravity	1,11±5%/cm <sup>3</sup>	1,12 ±5%/cm <sup>3</sup>
Dry extract at 105 °C (% weight) EN 1768	?99	?99
Ashes at 450 °C (% weight) EN 1879	?1	?1
Viscosity (S63, 30 rpm at 25 °C) UNE-EN ISO 2555	950±50 cps	650±50 cps
Mix ratio – in weight	100	102
Mix ratio – in volume	100	100

### MEMBRANE TECHNICAL DATA

PROPERTIES	RESULTS	METHOD
Density at 23°C	1.100 kg/m <sup>3</sup>	BS 4370 PART 1 METH 2
Elongation at break at 23°C	?380%	ISO 527
Tensile Strength at 23°C	>19 MPa	UNE-EN ISO 527-3
Hardness ( Shore A )	>85	DIN 53.505
Hardness ( Shore D )	>45	DIN 53.505
Minimum thickness	1,4 mm	
Recommended thickness	2 mm	
Surface temperatures	-20°C~90°C	
Roof slope	zero slope	
Fire reaction	Euroclass F	
Gel time at 23°C	±5~7 seconds	
Cured time at 23°C	±12 hours	
Solids (VOC zero)	100%	
Thermal resistance	It behaves consistently with temperature range of: -20°C ~+120°C	

Les données, informations et recommandations contenus dans cette fiche technique, relatifs aux produits, forme d'emploi et leur application, se fondent sur les connaissances actuelles obtenues dans la biographie (recherche propre), dans les essais de laboratoire et des expériences pratiques dans des circonstances contrôlées ou spécialement définies.

Les valeurs spécifiques peuvent souffrir des variations, car elles sont hors de notre contrôle, en raison des différentes conditions qui peuvent se présenter dans l'utilisation et l'application de nos produits. Il est de la responsabilité du client et il doit donc s'assurer (au moyen de ses propres essais) que chaque produit satisfait le but auquel est destiné, et que les conditions réelles d'utilisation sont adéquates.

L'information ne suppose pas compromis ou responsabilité juridique par les dommages qui pourraient se produire suite à une utilisation incorrecte ou application inadéquate, même en relation à des droits à des tiers et même si l'utilisation contrevient un certain brevet.

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