

SOLUTIONS
FOR HYDRAULIC WORKS

HYDRAULICS



HYDRAULICS

SUMMARY

Presentation.....	3
Hydraulic storage facilities.....	4
How to use a "geomembrane".....	4
How hydraulics structures should be waterproofed.....	5
Plasticized PVC geomembranes.....	6
TPO geomembranes.....	8
Solutions for dams.....	10
Potable water.....	11
Examples of recent references.....	12
Products.....	14





An independent family group since 1908, **SOPREMA** has established itself as one of the world's leading waterproofing companies and also as a specialist in roofing, sound sublayers and insulation. Over the years, the **SOPREMA** Group has grown and diversified around the world, integrating complementary activities into its original business: waterproofing. Having become a world leader in waterproofing solutions, the Group is now a key player in the construction and civil engineering sector.

With a workforce of more than 8,400 people and a turnover of more than 3 billion euros in 2019, **SOPREMA** has a global commercial industrial presence with 73 factories, more than 90 operating subsidiaries and a presence in 90 countries, as well as 18 highly focused sustainable development R&D centres and 22 training centres in 8 countries.

The result of a close collaboration between the Marketing and the R&D departments, the **SOPREMA** products range is innovative and in perfect harmony with market requirements and current standards. **SOPREMA's** success is built on a basic principle: to focus on the idea. The one who dares, and moves forward.

SOPREMA's products and services aim to meet the most demanding needs of building professionals, in terms of waterproofing of roof terraces, civil engineering works, insulation, roofing, natural lighting, green and photovoltaic roofs and reinforced geomembranes for swimming pools.

SOPREMA offers original, high-performance and high-tech solutions that address all building problems. Constantly optimized by the research and development services in a logic ecodesign, **SOPREMA** systems today display exceptional performance in terms of strength, reliability and longevity.

All **SOPREMA** plants are ISO 9001 certified. Some plants are ISO 14,001, ISO 16,001 and ISO 18,001.



HYDRAULICS

The water management became a major issue in many domains: agriculture, energy, treatment, industry and, of course, for potable water.

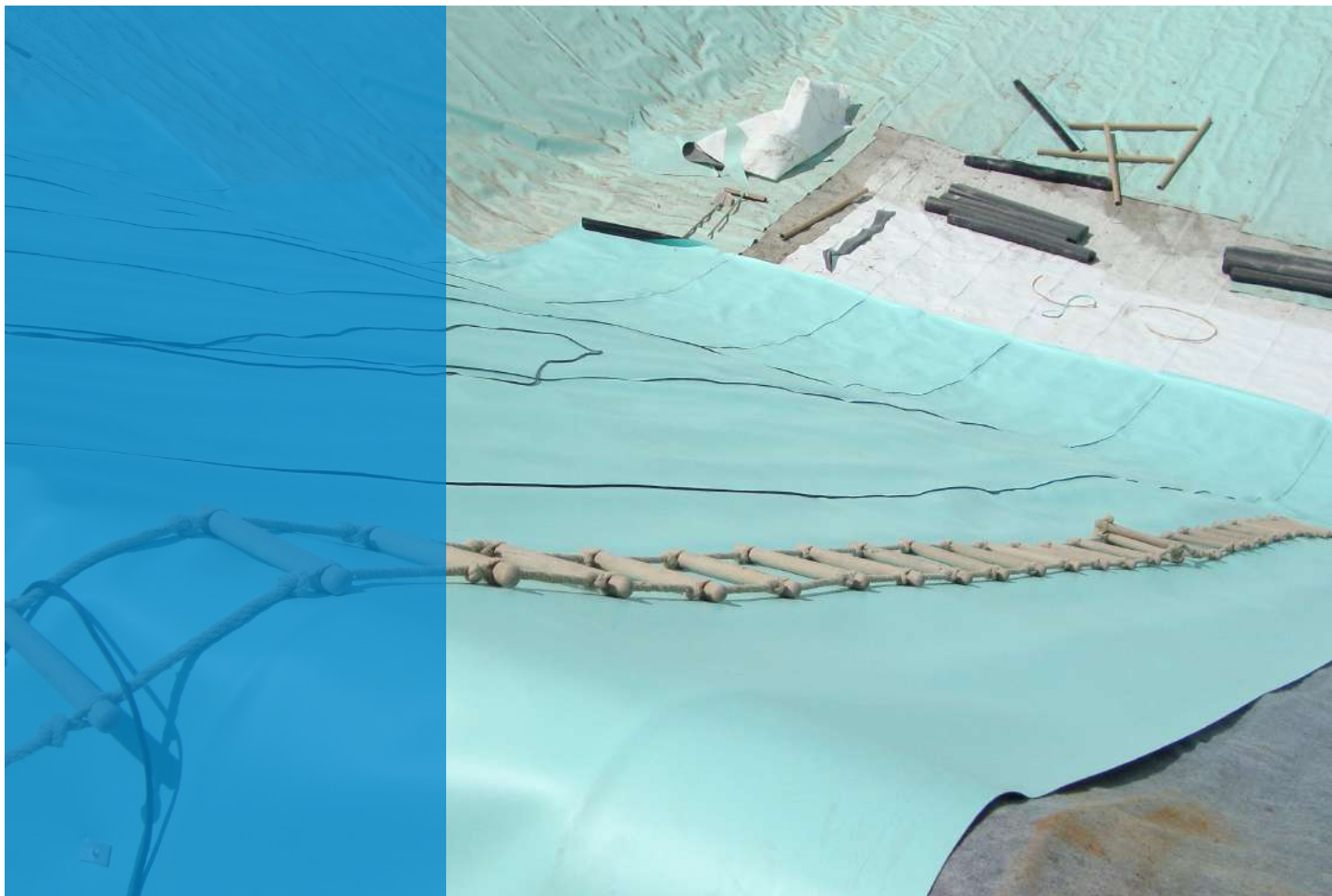
From its first time, **SOPREMA** has been involved in water management projects. In 1912, the protection of the Möhne dam was already a major project but many others, water pipes and sewers have been realized with **SOPREMA's** bituminous products.

Since 1963 **SOPREMA** develops specific PVC geomembranes for agriculture ponds. With that experience, it now provides a range of specialized geomembranes (PVC and TPO), geotextiles and geocomposites in order to provide its clients the highest level of knowledge in term of conception of products, design of projects and advices in the choice of solutions.

The range of products for hydraulics projects are based on:

- **Durability:** durability is the main issue in the choice of a product. We propose a large range of products and thickness in order to adapt the solution to the user's needs.
- **Installation:** the success of a project is the result of a good installation. Our products are tested to be the easiest possible to weld and to install.
- **Chemical compatibility:** with its large range of products, **SOPREMA** proposes a solution for most of the projects. A part of the products is also dedicated to potable water.

SOPREMA supports its clients and partners throughout their projects. Both commercially and technically, the dedicated team ensures that the projects are carried out in the best conditions to meet the needs of customers. Do not hesitate to ask: civilrock@soprema.com



HYDRAULIC STORAGE FACILITIES

Whether for agricultural, industrial or leisure purposes, modern society has numerous liquid storage requirements: potable water, salt water, liquids containing chemical substances, leachates, etc. It is essential to waterproof these structures to ensure that it works properly, avoid soil contamination and guarantee long service. Furthermore, the integration of such storage facilities in the urban or rural landscape has become a major issue. **SOPREMA** provides answers to these issues for retention structures (ponds, tanks, dams, etc.) and rainwater harvesting or water transport structures (canals, etc.).

HOW TO USE A "GEOMEMBRANE"

By definition, a "geomembrane" is a manufactured product for civil engineering, minimum 1.50 m wide, thin, flexible, continuous, gas and/or watertight at the output of the assembly line, minimum effective thickness of 1.00 mm over the entire surface of the panel and continuously weldable on each face by thermal welding [...] (extract from the standard NF P84-500).

SOPREMA PVC and TPO geomembranes offer the possibility of realizing waterproofing systems, visible or not, in different colors and that are easy to install whatever the shape of the structure.

The **SOPREMA's** products are recognized as ones of the easiest to weld which is the most important characteristic requested by installers.





HOW HYDRAULICS STRUCTURES SHOULD BE WATERPROOFED

For this type of structure, **SOPREMA** proposes PVC and TPO geomembranes which are particularly suited to the specific constraints of this type of structure:

- Lightweight, flexible and easily welded, they are simple to install.
- The 2.10 m wide rolls can be adapted to different shapes.
- A variety of colors are available for better integration of the structure into the landscape.

SOPREMA's complete range of synthetic geomembranes meet the technical and normative requirements across Europe. To effectively waterproof a hydraulic structure, it is necessary to choose the right geomembrane. The main points to consider are:

Technical:

- UV resistance if the geomembrane is exposed.
- Chemical resistance.
- Mechanical resistance if the banks slope steeply or if the substrate is unstable.
- Possible drinking water compatibility.

Architectural:

- Shape of the structure (the more complicated the structure, the more narrow geomembranes should be used).
- Integration into the landscape (colors, appearance, etc.).

Depending on the type of construction, the role of the waterproofing may vary and its composition may be adapted. As well as the synthetic liners themselves, **SOPREMA** offers its clients a vast range of complementary accessories:

- Geotextiles with different applications and geocomposite for protection (TILTEX).
- Fastening items (washers, edge strips, laminated sheets, etc.).
- Manual and automatic welding equipment.
- Pre-fabricated Flagon® accessories: inside and outside corners, rainwater outlets, aerators, anchors, etc.
- Adhesives, glues and cleaners.



Geotextile

Thanks to the numerous projects achieved since 1963, **SOPREMA** has acquired a level of experience that enables its teams to offer the best systems for clients' structures and budgetary constraints. As well as choosing the right waterproofing system, it is essential to choose a qualified installation contractor and to set up an appropriate quality control system.



Automatic welding equipment



Manual welding



PLASTICIZED PVC GEOMEMBRANES

These PVC geomembranes are manufactured by co-extrusion to make liners with thicknesses between 1,0 mm and 3.0 mm. The material produced can be homogeneous or reinforced single-ply geomembrane, with high tensile properties and high static and dynamic puncture resistance. This process can also produce two colors single-ply geomembranes (a thin layer to give color at the surface and a resistant layer at the underface).

They are particularly flexible at low temperatures, with good mechanical strength. These geomembranes also have the following advantages, among others, which vary in degree according to the additives in the geomembrane:

- Unaffected by hot-cold cycles.
- Static and dynamic puncture resistance.
- Root-proof and resistant to attack by micro-organisms.
- UV resistant.
- Safe, flame-free working and self-extinguishing.
- Unlimited choice of colors available (subject to minimum quantities).
- Wide width of 2.10 m and standard length of 20 or 40 m depending on the product (other lengths possible on request to suit to large projects).





PVC geomembrane

SOPREMA proposes PVC geomembranes with different compositions and for different areas of application. Multiple solutions using geomembranes are possible. This is why for any specific use or in the presence of various products, the **SOPREMA**'s dedicated team can guide you towards the most suitable geomembrane. Do not hesitate to ask: civilrock@soprema.com.

All these products are CE marked in accordance with:

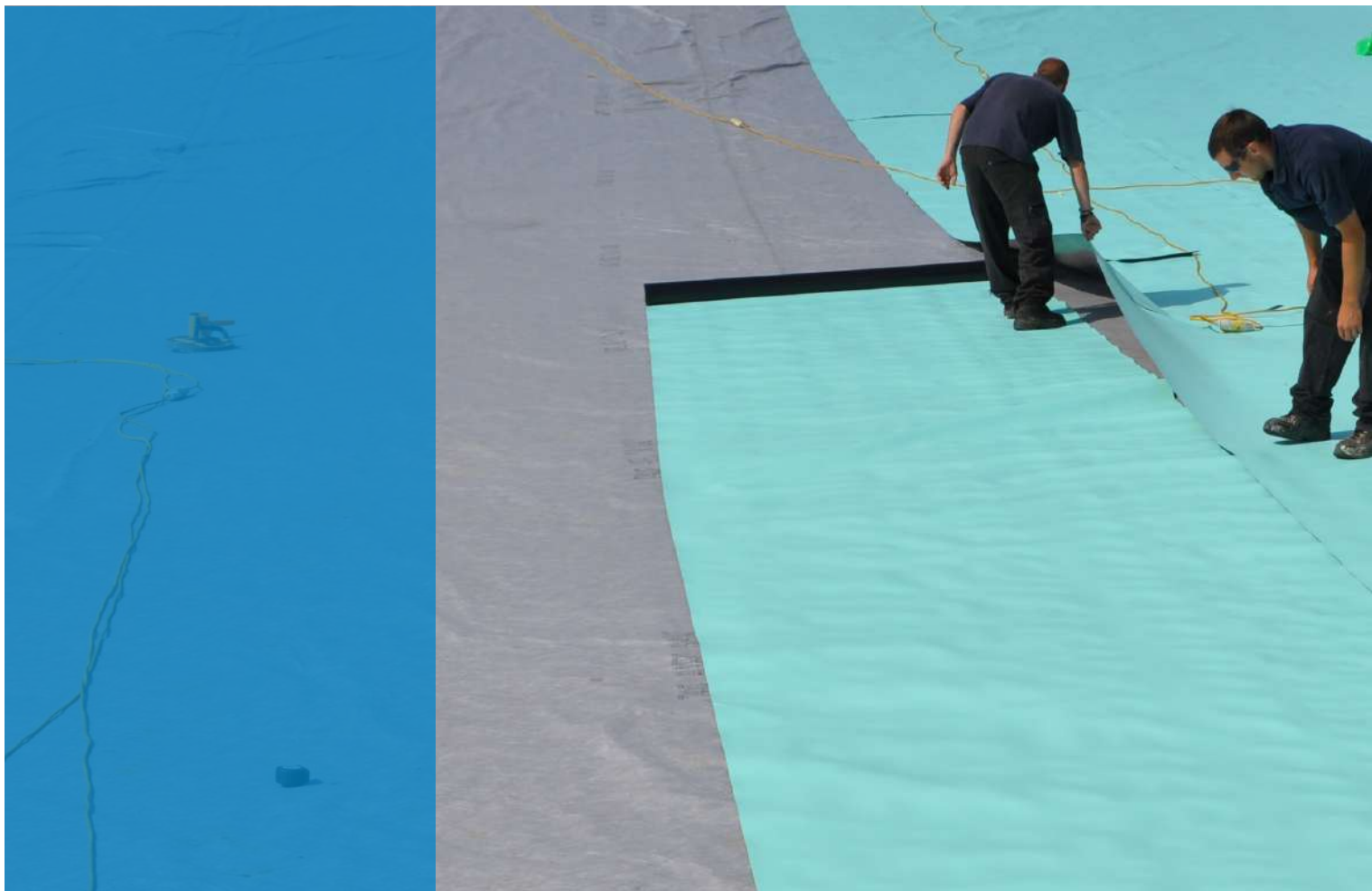
EN 13361 Geosynthetic barriers. Characteristics required for its use in the construction of reservoirs and dams.

EN 13362 Geosynthetic Barriers. Characteristics required for its use in the construction of canals.

They are all available in different thicknesses as 1.2 mm, 1.5 mm, 1.8 mm and 2.00 mm (may be subject to minimum quantities / other thicknesses available on request).

7

	INTENDED USE	DESCRIPTION	STANDARD COLORS	CHARACTERISTICS
FLAGON® CSL	Exposed geomembrane for basins, lakes, reservoirs, canals, etc.	Non reinforced.	Light or dark grey.	High elasticity and UV resistance.
FLAGON® CS	Covered geomembrane for basins, lakes, reservoirs, canals, etc.	Non reinforced.	Black.	High elasticity.
FLAGON® SR	Exposed geomembrane for basins, lakes, reservoirs, canals, etc.	Polyester reinforced.	Light or dark grey.	Reinforced geomembrane – UV resistance.
FLAGON® A	Covered geomembrane for reservoirs with traces of oils or safety retention basins.	Non reinforced.	Black.	Resistance to hydrocarbons.
GEODAM SL	Exposed geomembrane for dams.	Non reinforced.	Light or dark grey.	High elasticity and UV resistance.
GEODAM SLG	Exposed geomembrane for dams.	Non reinforced with backed geotextile.	Light or dark grey.	Mechanical protection and UV resistance.



TPO GEOMEMBRANES

The TPO geomembranes are made with a mix of polypropylene resin and polyolefin resin. The advantage of the TPO geomembrane is that does not contain plasticizer. Their mass per unit area is also 25 % less than PVC and they are easily recyclable. This makes TPO an environmentally-friendly material, respectful with people and the environment.

Furthermore, it is very resistant to UV degradation and weathering.

TPO geomembranes also have the following characteristics and advantages:

- Flexible at low temperatures.
- Unaffected by hot-cold cycles.
- High stability.
- Root-proof and resistant to attack by micro-organisms.
- Safe, flame-free working.
- Excellent geomembrane weldability.
- Compatible with bitumen.
- Unlimited choice of colors available (subject to minimum quantities).
- Wide width of 2.10 m, standard lengths of 20 or 40 m depending on the product (other lengths possible on request to suit to large projects).





TPO geomembrane

INTENDED USE

DESCRIPTION

STANDARD COLORS

CHARACTERISTICS

FLAGON®GEOP

Exposed geomembrane for basins, lakes, reservoirs, canals, etc.

TPO glass fiber reinforced.

Light green or Basalt grey (surface) and Black (underface).

Excellent stability and UV resistance.





SOLUTIONS FOR DAMS

The use of synthetic geomembranes in dams is offering many opportunities to ensure a better resistance and longer service life on new projects and to restore older structures.

According to the type of project, **SOPREMA** proposes solutions which are integrated in the structure or laid on its surface.

Specific studies have to be executed for each project to determine what the suitable products are: type of structure, height of water, sun exposure, etc. Do not hesitate to contact us (civilrock@soprema.com) to know how we can help you and provide you with the highest quality of waterproofing products for your project.



Sibelon by Carpi.



POTABLE WATER

It is important to consider the drinking water as a valuable product. Many projects now request to have approvals for use in contact with potable (or drinking) water. Even in canals or lakes, the use of approved product may be requested as the water can be used (after treatment) as drinking water.

The approvals are also suitable for fish farms or algae plants.

SOPREMA develops specific PVC and TPO geomembranes to be used in potable water storages in order to be approved by most of the countries and requirements. These developments are part of the works made for the protection of the water and maintain the hydraulic resources around the world, with benefits for industry and people.

GEOMEMBRANES IN PVC OR TPO:

TWO SAFE SOLUTIONS.

Waterproof geomembranes are able to:

- Secure the potable water storage in respect of the norms for drinking water.
- Protect the structures to avoid any risk of lost or cracks.

Sure, flexible and resistant:

- The geomembranes are made with specific materials responding to most of requirements of owners, designers and installers.



DESCRIPTION

STANDARD COLORS

CHARACTERISTICS

FLAGON® AT

PVC non reinforced.

White or dark grey.

High elasticity and UV resistance.

FLAGON® SR AT

PVC polyester reinforced.

White or dark grey.

Reinforced geomembrane – UV resistance.

FLAGON® GEOP AT

TPO glass fiber reinforced.

Light green or Basalt grey (upper face) and Black (underface).

Excellent stability and UV resistance.

These three geomembranes can be used for basins, lakes, reservoirs, canals, fish farms and algae plants.

EXAMPLES OF RECENT REFERENCES

FRANCE

• Purification basin. Achères.	19,000 m ²
• Basin. Ferraiz, La Clusaz.	16,000 m ²
• Basin. Vallandry.	4,600 m ²
• Coking plant. Fos sur Mer.	18,000 m ²
• Golf club. Les Gets.	6,500 m ²
• Retention. Méribel.	30,000 m ²
• Nursery basin. Dampierre-en-Burly.	6,400 m ²
• Altitude retention. Chamrousse.	28,000 m ²
• Multi-slide park. Baillargues.	72,000 m ²
• Altitude retention. Lauze, Courchevel.	30,000 m ²
• Golf club. Belle Ile En Mer.	3,000 m ²



Basin. Vallandry.



Golf club. Les Gets.



Agriculture pond. Dampierre-en-Burly.



Multi-slide park. Baillargues.



Altitude retention. Lauze, Courchevel.



Golf club. Belle Ile En Mer.

ITALY

• Basin. Mucone.	75,000 m ²
• Seawater fish farm ponds. Orbetello.	250,000 m ²
• Hydro-electric channel. Aosta.	45,000 m ²
• Golf. Is Molas.	10,000 m ²
• Retention. Cavanella.	35,000 m ²
• Tub. Scanzano Montalbano Jonico, Matera.	9,000 m ²
• Basin. Butera, Gela.	18,000 m ²
• Reservoir. Ciampino.	2,400 m ²
• Water storage basin for artificial snow. Turin 2006 Olympic Winter Games.	18,000 m ²

UK

• Drinking Water. Grand Turk.	5,000 m ²
• Nuclear cooling. Hartlepool.	2,000 m ²
• Golf club. London.	15,000 m ²

GREECE

• Irrigation canal. Thessaloniki.	50,000 m ²
-----------------------------------	-----------------------

SPAIN

• Basin. Almansa.	30,000 m ²
• Basin. Andalucía.	4,000 m ²
• Irrigation channel. Alagón.	33,000 m ²

MOROCCO

• Private house.	3,800 m ²
------------------	----------------------



Water storage basin for artificial snow.
Turin 2006 Olympic Winter Games.



Irrigation canal. Thessaloniki.



Irrigation channel. Alagón.

PRODUCTS

PVC GEOMEMBRANES

FLAGON® CSL

Geomembrane made of PVC-P UV resistant, specifically for waterproofing of basins, tanks, canals and similar structures.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® CSL 12	00050666	1.2 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	28
FLAGON® CSL 15	00050670	1.5 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	23
FLAGON® CSL 20	00050676	2 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	18

Installation

Flagon® CSL rolls are placed independently on a geotextile of the Geoland range and the sheets are welded together by applying hot air with manual or automatic welding machine.

Main advantages

- Flexibility.
- Excellent weldability.
- ASQUAL certified in thickness 1.2 mm and 1.5 mm.
- Approved by a CPP.

FLAGON® CS

PVC geomembrane for channels and hydraulic works not exposed.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® CS 10	00051653	1 mm	30 m x 2.10 m (63 m ²)	Black	28
FLAGON® CS 15	00098775	1.5 mm	20 m x 2.10 m (42 m ²)	Black	23
FLAGON® CS 18	00112170	1.8 mm	20 m x 2.10 m (42 m ²)	Black	14
FLAGON® CS 20	00099197	2 mm	20 m x 2.10 m (42 m ²)	Black	14

Installation

Flagon® CS rolls are placed independently on a geotextile of the Geoland range and the sheets are welded together by applying hot air with manual or automatic welding machine.

Main advantages

- Flexibility.
- Excellent weldability.
- Approved by a PPC.
- Resistance to immersion in water.

FLAGON® SR

Synthetic PVC waterproofing geomembrane for main part and readings. The geomembrane is reinforced with a polyester grid.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® SR 12	00050353	1.2 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	14
FLAGON® SR 15	00051543	1.5 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	14
FLAGON® SR 18	00050430	1.8 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	14
FLAGON® SR 20	00051545	2 mm	20 m x 2.10 m (42 m ²)	Light grey / Dark grey	14

Installation

Semi-independent by mechanical fixings: **Flagon® SR** geomembranes are unwound and superimposed without tension with overlap longitudinal of 10 cm minimum. The fixings mechanics are placed under the cover of strips which will then be welded.

Main advantages

- Flexibility at low temperature.
- Insensitivity to hot-cold cycles.
- High mechanical resistance and static and dynamic punching.
- UV resistance.
- Safety of a fire-free site.

FLAGON® A

FLAGON® A is a thermoplastic geomembrane made of PVC-P that contains special plasticizers, specifically designed for the non UV exposed waterproofing of areas in contact with fluids with traces of hydrocarbons or oils. **FLAGON® A** can also be used on hydraulics (retention), on undergrounds (tanking) and on roofs under trafficable rigid ballast.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® A 15	00050482	1.5 mm	20 m x 2.10 m (42 m ²)	Black	23
FLAGON® A 18	00050484	1.8 mm	20 m x 2.10 m (42 m ²)	Black	18
FLAGON® A 20	00051925	2 mm	20 m x 2.10 m (42 m ²)	Black	18

Installation

The rolls of **Flagon® A** are laid independently on a geotextile and the strips are welded together by heat sealing. The geomembrane must be UV protected.

Main advantages

- Flexibility.
- Excellent weldability.
- Hydrocarbon and oils resistance.
- Approved by a CPP.

TPO GEOMEMBRANES

FLAGON® GEOP



TPO geomembrane reinforced with a glass fiber for the waterproofing of basins and tanks exposed to UV.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® GEOP 12	00050790	1.2 mm	25 m x 2.10 m (52.50 m²)	Light green / Dark grey	23
FLAGON® GEOP 15	00050812	1.5 mm	20 m x 2.10 m (42 m²)	Light green / Dark grey	23
FLAGON® GEOP 20	00050820	2 mm	20 m x 2.10 m (42 m²)	Light green / Dark grey	18

Installation

The rolls of **Flagon® GEOP** are laid in independence on a geotextile and the lengths are welded together by heatsealing.

Main advantages

- Compatible with plants.
- Excellent weldability.
- Low dimensional variation under the effect heat.
- ASQUAL certified in 1.2 mm (without reinforcement).
- Approved by a CPP.

GEOMEMBRANES FOR POTABLE WATER

FLAGON® AT



FLAGON® AT is a thermoplastic geomembrane made of PVC-P specifically designed for waterproofing tanks and basins used for drinking water.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® AT 12	00050492	1.2 mm	20 m x 2.10 m (42 m²)	White / Dark grey*	28
FLAGON® AT 15	00050494	1.5 mm	20 m x 2.10 m (42 m²)	White / Dark grey*	23
FLAGON® AT 20	00050989	2 mm	20 m x 2.10 m (42 m²)	White / Dark grey*	18

*On request.

Installation

The rolls of **Flagon® AT** are laid independently on a geotextile of the Geoland range and the lengths are welded together by heat sealing.

Main advantages

- Flexibility.
- Excellent weldability.
- ACS certified product (Attestation of Sanitary Compliance).
- Approved by a CPP.

FLAGON® SR AT



FLAGON® SR AT is a synthetic PVC-P geomembrane specifically designed for waterproofing tanks and basins used for drinking water. The geomembrane is reinforced with a polyester grid.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® SR AT 15	00104940	1.5 mm	20 m x 1.60 m (32 m²)	Light grey / Dark grey	14
	00152451	1.5 mm	20 m x 2.10 m (42 m²)	Light grey / Dark grey	14
FLAGON® SR AT 18	On request	1.8 mm	20 m x 1.60 m (32 m²)	Light grey / Dark grey	14
	On request	1.8 mm	20 m x 2.10 (42 m²)	Light grey / Dark grey	14
FLAGON® SR AT 20	On request	2 mm	20 m x 1.60 m (32 m²)	Light grey / Dark grey	14
	On request	2 mm	20 m x 2.10 (42 m²)	Light grey / Dark grey	14

Installation

The rolls of **Flagon® SR AT** are laid independently on a geotextile of the Geoland range and the lengths are welded together by heat sealing.

Main advantages

- Flexibility at low temperature.
- Insensitivity to hot-cold cycles.
- High mechanical resistance and static and dynamic punching.
- UV resistance.
- Safety of a fire-free site.
- Potable water.

FLAGON® GEOP AT



TPO geomembrane reinforced with a glass fiber, designed for the waterproofing of basins and drinking water tanks exposed to UV.

Packaging:

	Reference	Thickness	Roll	Exposed color	Rolls per pallet
FLAGON® GEOP AT 12	00050794	1.2 mm	25 m x 2.10 m (52,5 m²)	Light green	23
FLAGON® GEOP AT 15	00050818	1.5 mm	20 m x 2.10 m (42 m²)	Light green	23
FLAGON® GEOP AT 18	00051392	1.8 mm	20 m x 2.10 m (42 m²)	Light green	18
FLAGON® GEOP AT 20	00052830	2 mm	20 m x 2.10 m (42 m²)	Light green	18

Installation

Flagon® GEOP AT rolls are laid independently on a geotextile and the lengths are welded between them by heat sealing.

Main advantages

- Compatible with plants.
- Excellent weldability.
- Low dimensional variation under the influence of heat.
- Compatible with drinking water.
- Approved by a CPP.

GEOTEXTILES

GEOLAND HT



Non-woven needle punched geotextiles made of 100% polypropylene high tenacity fibers used for road construction projects, tunnels, foundations and hydraulics.

Packaging:

- Colors: white.
- Width: 2.20 m, 3.30 m or 6.60 m.
- Weight: 120 g/m² (125 ml), 150 g/m² (125 ml), 200 g/m² (100 ml), 300 g/m² (65 ml), 400 g/m² (55 ml), 500 g/m² (50 ml), 700 g/m² (50 ml), 800 g/m² (50 ml).
- Other weights on request.
- **References:** On request.

Installation

Geoland HT is loose laid in direct contact with the ground. Junction can be done by light hot air welding. UV exposure has to be limited.

Main advantages

- High tenacity.
- High resistance to alkalinity and inert towards the various chemical elements present in the soil.
- Possibility of roll widths of up to 6.6 m and length on request.
- CE marking for separation, filtration, drainage and protection.

GEOLAND HT/I



Non-woven needle punched geotextiles made of 100% polypropylene high tenacity fibers used for road construction projects, tunnels, foundations and hydraulics.

Packaging:

- Colors: white.
- Width: 6.5 m.
- Weight: 120 g/m² (120 ml), 150 g/m² (100 ml), 180 g/m² (100 ml), 200 g/m² (100 ml), 250 g/m² (100 ml), 300 g/m² (100 ml), 400 g/m² (70 ml), 500 g/m² (60 ml).
- Other weights on request.
- **Reference:** On request.

Installation

Geoland HT/I is loose laid in direct contact with the ground. Junction can be done by light hot air welding. UV exposure has to be limited.

Main advantages

- High tenacity.
- High resistance to alkalinity and inert towards the various chemical elements present in the soil.
- CE marking for separation, filtration, drainage and protection.

GEOLAND SHT



Non-woven needle punched geotextiles made of 100% polypropylene high tenacity fibers treated by the addition of carbon black used for road construction projects, tunnels, foundations and hydraulics.

Packaging:

- Colors: black.
- Width: 2.20 m, 3.30 m or 6.60 m.
- Weight: 500 g/m² (50 ml), 700 g/m² (50 ml), 800 g/m² (50 ml), 1000 g/m² (40 ml), 1200 g/m² (30 ml).
- Other weights on request.
- **Reference:** On request.

Installation

Geoland SHT is loose laid in direct contact with the ground. Junction can be done by light hot air welding.

Main advantages

- High tenacity.
- High resistance to alkalinity and inert towards the various chemical elements present in the soil.
- Possibility of roll widths up to 6.6 m and length on request.
- CE marking for separation, filtration, drainage and protection.

GEOLAND MC



100% Needle Punched Nonwoven Geotextiles polypropylene, mainly used as mechanical protection in projects for road infrastructure, foundations, basins and underground structures. Fibers used are mainly from sectors controlled recycling. CE marked for the functions of separation, filtration, drainage and protection.

	Reference	Roll	Rolls per pallet
GEOLAND MC 500	00103629	50 m x 2.20 m (110 m ²)	9
GEOLAND MC 700	00103633	50 m x 2.20 m (110 m ²)	4

Other dimensions and weights available on request. Consult us.

Installation

The geotextiles are laid independently in direct contact with the ground. The connection between strips can be carried out by heat sealing. UV exposure must be limited.

Main advantages

- Polypropylene geotextile
- High resistance to chemicals.
- Reduced price.
- Possibility of large width.

TILTEX

TILTEX®



TILTEX® is a geocomposite made with two polypropylene non woven geotextiles (350 g/m² for the carrier layer and 200 g/m² for the cover layer) embedding a cement-sand mix. The whole is maintained by an intense needling process made in the plant.

Packaging:

- Mass per unit area (Kg/m²): 7, 9, 10, 12
- Length/width: 20 ml / 5 m – 20 ml / 2.5 m – 5 ml / 1 m
- **References:** 00118648 to 00118671.

Installation

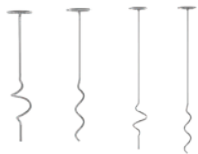
Once unrolled, the product is hydrated with water to set the mortar and form a thin layer of fiber cement.

Main advantages

- Easy and quick to install.
- Easy to adapt.
- High resistance to erosion and static or dynamic punctures.

TILTEX P

On request.



	Reference	Units per box
TILTEX® P1	00118995	200
TILTEX® P2	00118996	200
TILTEX® P3	00118997	150
TILTEX® P4	00118998	150



TILTEX TOOL

On request.

Reference: 00118999.



ALSAN FLEX 2921SB + GUN

On request.

References: 00152421 (cartridge) / 00156179 (Application Gun CG-CT6)
00152471 (bags) / 00156181 (Application Gun CG-FP6).

GEOMEMBRANES FOR DAMS

GEODAM SL



GEODAM SL is a two-coloured geomembrane made of PVC-P, specifically designed for waterproofing dams and retaining structures.

Packaging:

- Depending on each project.
- **References:** On request.

Installation

GEODAM SL geomembrane is placed on a mechanical protection geotextile or directly manufactured coupled with a geotextile as **GEODAM SLG** geocomposite.

Main advantages

- High resistance to UV.
- Includes a signal layer.
- Length adapted for each project.

GEODAM SLG



GEODAM SLG is a geocomposite, composed of a PVC-P geomembrane coupled with a non-woven polypropylene geotextile on the lower face of the geomembrane.

Packaging:

- Depending on each project.
- **References:** On request.

Installation

GEODAM SLG geomembrane is fixed directly on the structure.

Main advantages

- High resistance to UV.
- Includes a signal layer.
- Length adapted for each project.

ACCESSORIES - WELDING TOOLS



ROLLER FOR PVC

On request.

References: 40 mm: 00051442 / 80 mm: 00051443.



ROLLER FOR TPO

On request.

Reference: 30 mm: 00051441.

KIT FOR PRESSURE TEST

On request.

Reference: 00051326.

ACCESSORIES - CLEANERS



PVC CLEANER

On request.

Reference: 00159164.

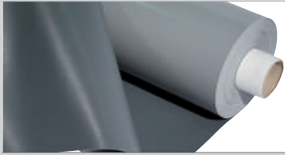


TPO CLEANER

On request.

Reference: 00159166.

ACCESSORIES - WALKWAY



WALKWAY PVC

On request.

Reference: 00107223



WALKWAY TPO

On request.

Reference: 00050784

ACCESSORIES - FIXING ACCESSORIES



FIXING BAR

On request.

Reference	Lenght (m)	Pieces per pack
00105750	2	10
00102455	3	10



METAL SHEET WITH PVC

On request.

Reference	Lenght (m)
00050824	2
00050983	3



METAL SHEET WITH TPO

On request.

Reference	Lenght (m)
00101060	2
00101061	3



FIXING PLATES IN PVC

On request.

Reference: 00051344.



FIXING PLATES IN TPO

On request.

Reference: 00051346.

ACCESSORIES - VENT



VENT IN PVC

On request.

Reference	Height (mm)	Ø (mm)	Colors	Pieces per pack
00050846	160	390	Light grey	10
00051674	240	320	Light grey	10
00051673	400	390	Light grey	10



VENT IN TPO

On request.

Reference	Height (mm)	Ø (mm)	Colors	Pieces per pack
00050950	160	390	Light grey	10
00051027	240	320	Light grey	10
00051037	400	390	Light grey	10



VENT CAP

On request.

Reference	Type	Height (mm)	Ø (mm)	Pieces per pack
00051621	Standard	80	100	10
00051622	Estraer	140	70	10

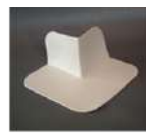
ACCESSORIES - ANGLES



ANGLE IN PVC 90° 95

On request.

Reference	Type	Colors	Pieces per pack
00050297	Internal	Light grey	20
00050285	External	Light grey	20



ANGLE IN TPO 90° 95

On request.

Reference	Type	Colors	Pieces per pack
00050319	Internal	Light grey	20
00050255	External	Light grey	20

ACCESSORIES - ANCHORS

FLAGON ANCHORS

The anchors that must be made through geomembranes can be done by using a **FLAGON ANCHOR**. The number of anchors must be determined according to the nature of the support and the loads.

On request.

Reference: 00155396.



ALSAN ANCHOR EP3 AND APPLICATION GUN CG-DC7

ALSAN ANCHOR EP3 is a best-performing two-component 3:1 ratio pure epoxy based bonded anchoring system, which offers extremely high load-bearing capacity.

Main advantages

- Anchoring high load bearing.
- Compatible with Soprema products.
- ETA.

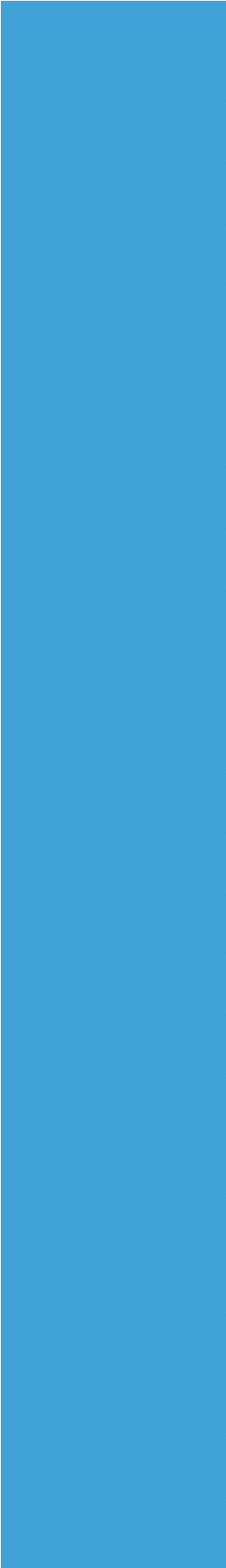
On request.

Reference: 00156151 / 00156177 (GUN).





NOTES



SOPREMA Group at your service!

www.soprema.com

✉ civilrock@soprema.com

