SOPREMA®

WHERE INNOVATION AND EXPERTISE WORK FOR YOU

PRODUCTS FOR THE BUILDING ENVELOPE AND CIVIL ENGINEERING APPLICATIONS

WHERE INNOVATION AND EXPERTISE WORK FOR YOU

THE SOPREMA EXPERIENCE

For more than 100 years, SOPREMA has put its expertise and its sense of innovation at the service of builders. Every year, hundreds of construction professionals in Australia and around the world choose SOPREMA for its complete product offering, its concern for quality, and above all, for its personalised service. SOPREMA is more than a manufacturer: it is also a partner!

SPIRIT OF INNOVATION

Always attentive to construction industry professionals, SOPREMA is renowned as a pioneer for its new product development initiatives that meet the needs of clients and facilitate their work. The company was the first to develop automated systems for the installation of membranes, and was also the first roof waterproofing manufacturer to incorporate green roof concepts into its product line. Innovation at SOPREMA also involves active participation in the development of new industry standards.

- WATERPROOFING
- INSULATION
- VEGETATIVE SOLUTIONS
- SOUNDPROOFING
- ACCESSORY PRODUCTS

OVER 100 YEARS
OF INDUSTRY EXPERIENCE

4000+ DISTRIBUTORS

80 MAINTAINED PATENTS

9720 EMPLOYEES ALL OVER THE WORLD

100+ SUBSIDIARIES

3,74 BILLION EUROS OF TURNOVER IN 2021

22 TRAINING CENTRES IN **8** COUNTRIES

17 RESEARCH & DEVELOPMENT CENTRES

101 PRODUCTION SITES

- 31 WATERPROOFING
- 10 RECYCLING
- 8 SMOKE EXTRACTION
- 40 INSULATION
- 2 SEALANTS & GLUES
- 7 METAL FRAME WORKSHOPS
- 1 GEOTEXTILE
- 2 GLUED LAMINATED WOOD STRUCTURES

SOPREMA
AUSTRALIA AND NEW ZEALAND

SOPREMA has had a presence in Australia and New Zealand for over 35 years, supplying waterproofing solutions adapted to the local climate conditions.

SOPREMA offices are located in Sydney, Melbourne and Auckland, with distribution centres located across the region.

TESTING
AND APPROVALS

SOPREMA has steadily carved its own niche among the leaders of the roofing and waterproofing industry and is known for its numerous approval and associations with many certification entities.

BBA · BRANZ · FM APPROVED · ASTM INTERNATIONAL Standards Worldwide

COMPLIANCE WITH AS 4654 STANDARD

FLL ROOT RESISTANCE

vicroads SECTION 691 APPROVED

TÜV SÜD · UL CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION · SINGAPORE GREEN BUILDING COUNCIL

PRODUCTS FOR EVERY APPLICATION

WATERPROOFING SOLUTIONS

CASE STUDY:
RECOVERY SYSTEMS

Circular Quay, NSW

Poor substrates and failed waterproofing membranes are difficult and costly to repair. In addition, removal of the old membrane or topping screeds can leave the structure unprotected for significant periods of time.

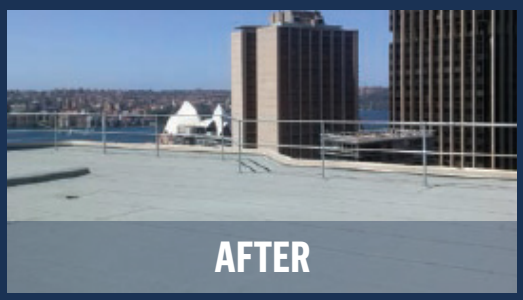
SOPRASMART board system uses a high performance SBS base sheet membrane adhered to a flexible reinforced bitumen board.

SOPRASMART boards can completely isolate old membranes or poor roof substrates and provide a stable yet flexible substrate for a new waterproofing system. All this without removing the old membrane.

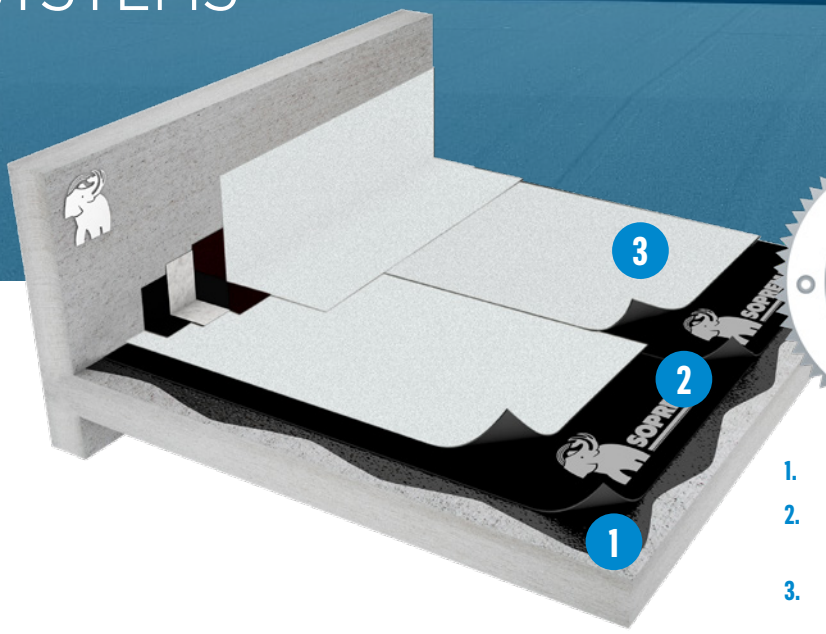
Time efficient installation is achieved with SOPREMA's unique DUO SELVEDGE heat welded / adhesive strip edge bonding technology.

This effectively helps locate the sheets and protect the board and substrate when heat welding.

It also allows complete sealing of the roof in ONE application prior to application of the cap sheet.



BITUMINOUS WATERPROOFING SYSTEMS



PLATINUM WARRANTY

1. Primer: **ANTIROCK PRIMER**
2. Waterproofing membrane: SBS or APP Base Sheet
3. Waterproofing membrane: SBS or APP Cap Sheet

SBS AND APP MODIFIED BITUMEN

Bitumen is a form of waterproofing material that has been used in various forms since ancient times. At SOPREMA, we have been developing bituminous solutions for over 100 years - all designed to protect flat and pitched roofs, domed structures, terraces, and courtyards from rainfall.

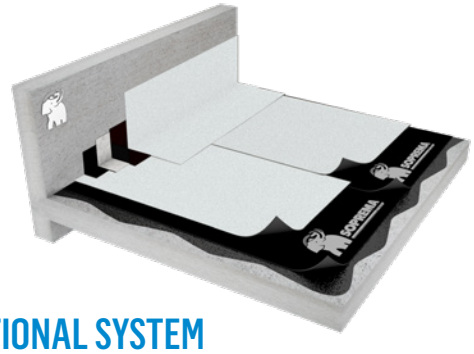
SOPREMA offers a wide range of products manufactured with SBS and APP modified bitumen. By adding other materials to the bitumen, manufacturers can create a longer-lasting more durable product while giving it either plastic or rubber properties. Modifying bitumen gives it the ability to withstand a wide range of temperatures, and superior weatherproofing.

BENEFITS

- Superior technical performance
- Aesthetic finish
- Easy to install
- Guaranteed longevity
- Solutions for high and low temperatures

BITUMINOUS SOLUTIONS

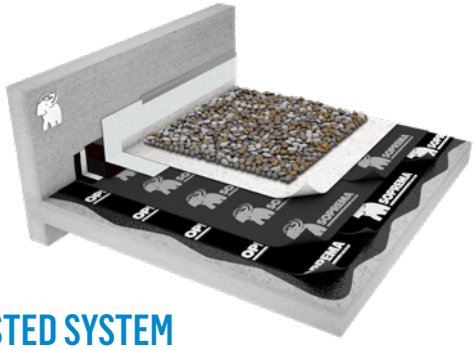
SOPRALENE and SOPRASUN systems offer great waterproofing design tailored to your needs. Our systems have been designed to meet the normative requirements and environmental challenges of the Australian climate.



CONVENTIONAL SYSTEM

Exposed Roof

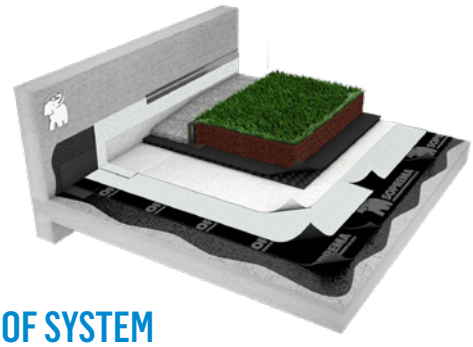
The waterproofing system is applied directly onto the construction deck. This is a fast and cost effective way to waterproof an exposed roof.



BALLASTED SYSTEM

Protected Roof

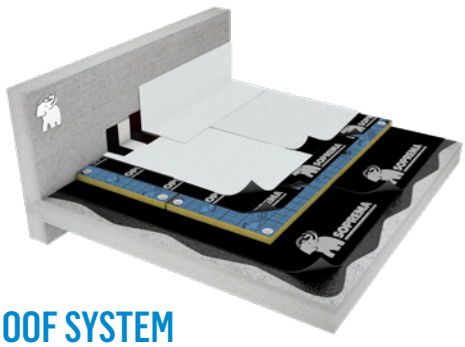
The waterproofing system is protected with a layer of gravel against environmental exposure and mechanical damage, making the membrane last much longer.



GREEN ROOF SYSTEM

Protected Roof

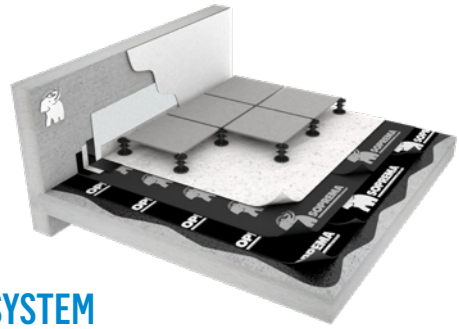
Green Roofs are partially or completely covered with vegetation and a growing medium, installed over a SOPREMA waterproofing system. They are the perfect way to create a sustainable building envelope solution.



WARM ROOF SYSTEM

Exposed Roof

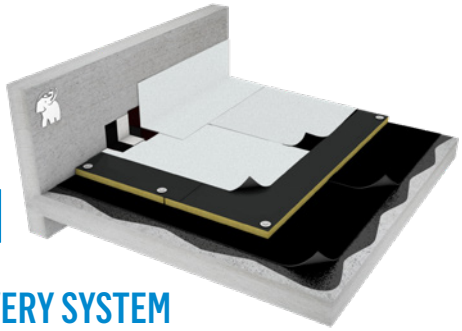
The insulation is installed under the roofing waterproofing system, giving it an excellent thermal performance. The full system is manufactured, supplied and warranted by SOPREMA.



PAVED SYSTEM

Protected Roof

Designed for areas with heavy pedestrian traffic. The waterproofing system is installed, and then protected with paving slabs. The pedestal pavers allow continuous and effortless adjustments and leveling of slabs.



RECOVERY SYSTEM

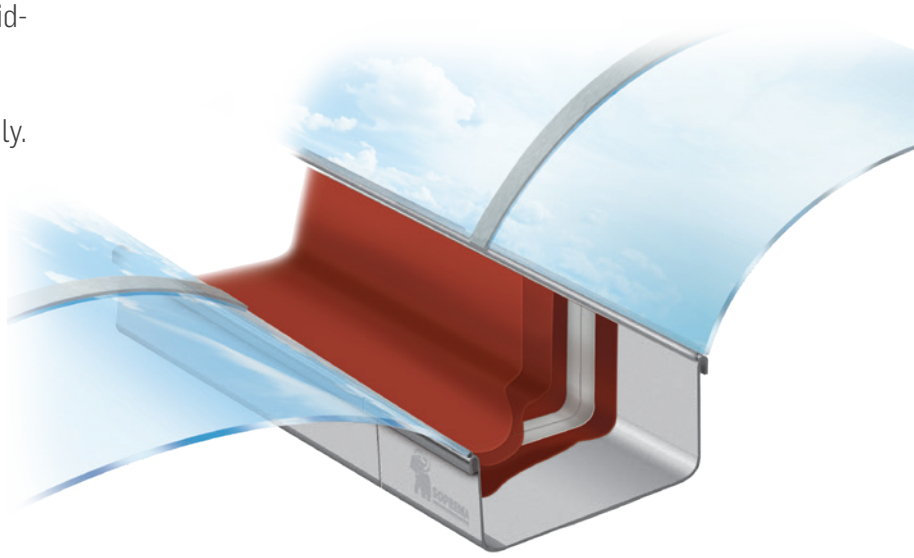
Exposed Roof

Ideal for refurbishment projects, where an existing roofing system is failing or has reached its service life. A cost effective solution, as there is no need to remove and dispose of the existing waterproofing membrane.

ALSAN FLASHING

ALSAN FLASHING is a unique polyurethane bituminous resin specially formulated for liquid-applied flashings, details, and maintenance applications. It can be used to waterproof penetrations of all types, perfectly and lastingly.

- Conforms easily to any geometrical or irregular shapes
- Superior protection against moisture
- Quick-curing seamless flashing that matches granule cap sheet membranes
- Single-component flashing solution: no catalyst needed and no wasted product
- Great for quick, cost-effective repairs



SOPREMA'S WATERPROOFING MEMBRANES

The SOPRALENE and SOPRASUN product lines carry the proven durability of SOPREMA's trusted SBS and APP modified bitumen formula.

SBS SOPRALENE membranes offer peace of mind thanks to their excellent durability in all climates and conditions. In addition, SBS membranes adhere particularly well, and can be installed using various application methods.

SOPRASUN APP-modified bitumen membranes prove long term reliability with its higher UV resistance. With a higher softening point, APP membranes display superior heat resistance, making them particularly fit to tropical climates.

DuO HIGH TECH

SOPREMA's DuO High Tech membranes combine an APP/TPO modified bitumen top-coat with a SBS-modified bitumen under-coat and overlaps. This balance result in a superior waterproofing system that is both UV resistant and flexible.

DuO membranes are designed to achieve the best a modified-bitumen membrane has to offer. They can be used on many different surfaces and installed by various techniques.

RAW MATERIALS FROM **75%** CANOLA OIL

-50% NON-RENEWABLE FOSSIL RESOURCES

2x TWICE AS DURABLE

MAMMOUTH NEO
A SUSTAINABLE SOLUTION

One element of SOPREMA's main mission is to take into account the effects of our products on the environment and health, from design to destruction.

We believe that producing materials that address the needs of waterproofing professionals while protecting the interests of future generations is a mission that the building industry must integrate into all of its environmental activities.

With this in mind and after years of research and development, SOPREMA has developed the world's first bio-based TPU waterproofing membrane.

MAMMOTH PLATINUM
WARRANTY

MATERIALS+ WORKMANSHIP

With a MAMMOTH PLATINUM WARRANTY, if a leak develops due to a manufacturing defect or due to the installation workmanship of the installing contractor, SOPREMA will provide you with the labour and materials necessary to return the system to a watertight condition.

Whether for new projects or repair works*, the MAMMOTH PLATINUM WARRANTY is amongst the most comprehensive roofing warranties in the industry.

- One point warranty which provides protection against manufacturing or installation defects causing leaks.
- Replaces defective membranes and all other contaminated roof assembly components.
- No financial cap and does not diminish over the period of the warranty.
- Installation performed by SOPREMA's trusted Platinum Applicators.
- Depending on the selected systems and your needs, MAMMOTH PLATINUM WARRANTY offers 10, 15 or 20-year of coverage.

* Available only for SOPRALENE FLAM, SOPRASUN PLUS and FLAGON PVC waterproofing systems

FOR WARRANTY PROGRAMS ON OTHER BUILDING COMPONENTS, PLEASE CONTACT YOUR LOCAL SALES REPRESENTATIVE.

CPD TRAINING FOR ARCHITECTS

Hungry to learn more? Our experts will be happy to organise a private CPD Training for you and your colleagues. It can be scheduled around your own schedule, at any time of the day.

During this training, you will acquire solid knowledge about waterproofing and insulation solutions best suited to your building construction needs.

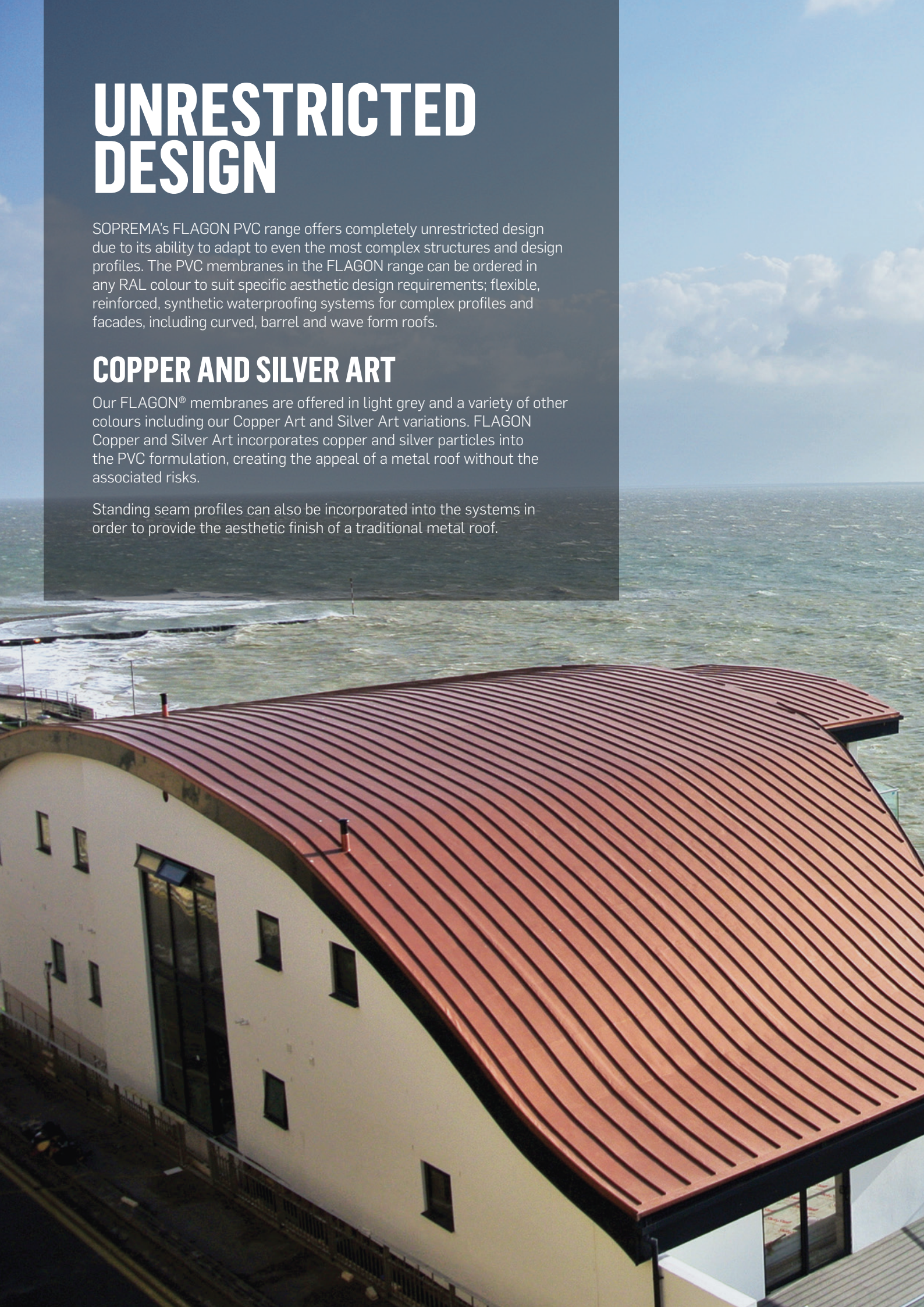
UNRESTRICTED DESIGN

SOPREMA's FLAGON PVC range offers completely unrestricted design due to its ability to adapt to even the most complex structures and design profiles. The PVC membranes in the FLAGON range can be ordered in any RAL colour to suit specific aesthetic design requirements; flexible, reinforced, synthetic waterproofing systems for complex profiles and facades, including curved, barrel and wave form roofs.

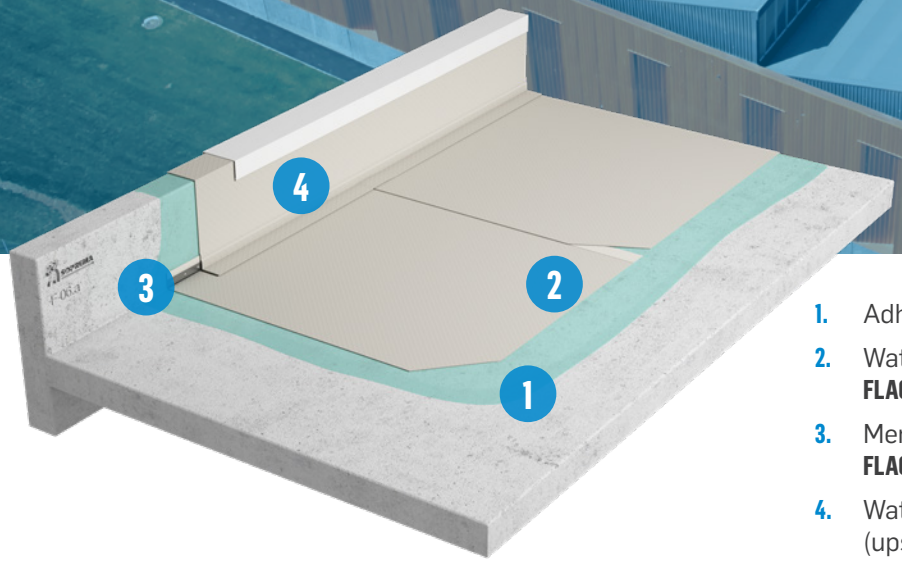
COPPER AND SILVER ART

Our FLAGON® membranes are offered in light grey and a variety of other colours including our Copper Art and Silver Art variations. FLAGON Copper and Silver Art incorporates copper and silver particles into the PVC formulation, creating the appeal of a metal roof without the associated risks.

Standing seam profiles can also be incorporated into the systems in order to provide the aesthetic finish of a traditional metal roof.



SYNTHETIC WATERPROOFING SYSTEMS



1. Adhesive: **FLEXOCOL 89**
2. Waterproofing membrane: **FLAGON SFc**
3. Membrane termination: **FLAGMETAL** bar
4. Waterproofing membrane (upstand): **FLAGON SV** adhered with **FLEXOCOL V**

FLAGON PVC MEMBRANES

SOPREMA offers a wide variety of PVC single-ply waterproofing membranes. Our FLAGON line of high performance synthetic membranes are composed of plasticised PVC (thermoplastic polyvinyl chloride). These membranes are inherently fire and chemical resistant and offer design flexibility for use in both low and steep slope applications.

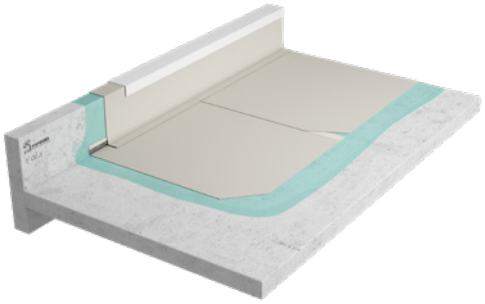
Adaptable to the most complex architectural forms, whilst remaining a process that is weather-proof and resistant to pollution and UV rays. Attractive, flexible, easy to apply, our FLAGON PVC waterproofing systems guarantee durable, high-performance waterproofing that extend building lifespans.

BENEFITS

- Flexible at low temperatures
- High mechanical resistance
- Resistant to UV rays and weathering
- Exceptional dimensional stability
- Service life of more than 35 years

SYNTHETIC SOLUTIONS

FLAGON PVC systems are the perfect solution for quick and easy installation on large scale commercial projects that demand flexibility and excellent dimensional stability, such as stadiums, supermarkets, distribution centres, production facilities and complex profile designs.



FULLY ADHERED SYSTEM

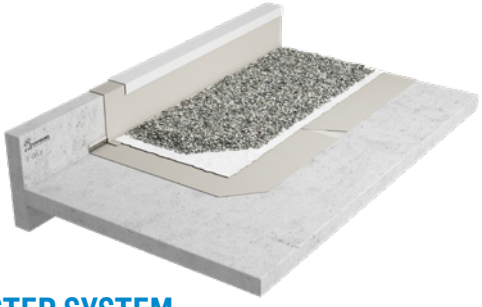
Exposed Roof

A fast and cost effective way to waterproof an exposed roof. As it is adhered to the roof substrate, it is ideal for new builds in high wind areas, or when trying to minimise noise for people in the building.

MECHANICALLY FIXED SYSTEM

Exposed Roof

Another fast and cost effective way to waterproof existing buildings. The waterproofing membrane is mechanically fastened onto the substrate with no need of removing and disposing the existing system.



BALLASTED SYSTEM

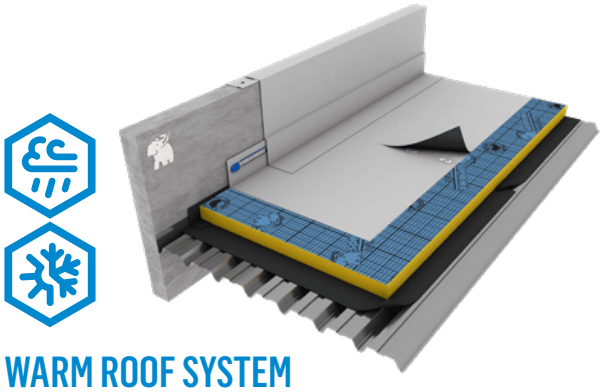
Protected Roof

The waterproofing system is covered with a layer of gravel against environmental exposure and mechanical damage, making the membrane last much longer.

TRAFFICABLE SYSTEM

Protected Roof

Designed for areas with heavy pedestrian traffic, the waterproofing system is protected with paving slabs. The pedestal pavers allow continuous and effortless adjustments and leveling of slabs.



WARM ROOF SYSTEM

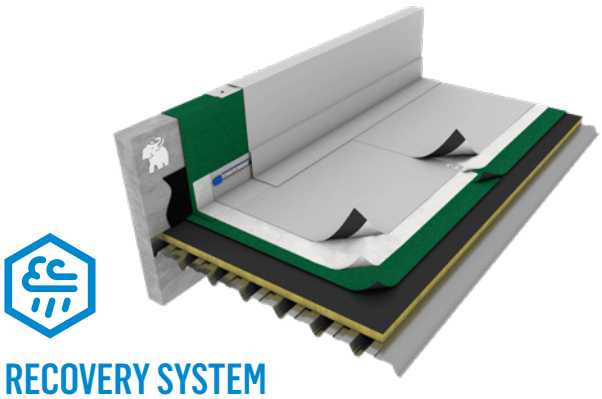
Exposed Roof

The insulation is installed under the waterproofing system, giving it an excellent thermal performance. The full system is manufactured, supplied and warranted by SOPREMA.

GREEN ROOF SYSTEM

Protected Roof

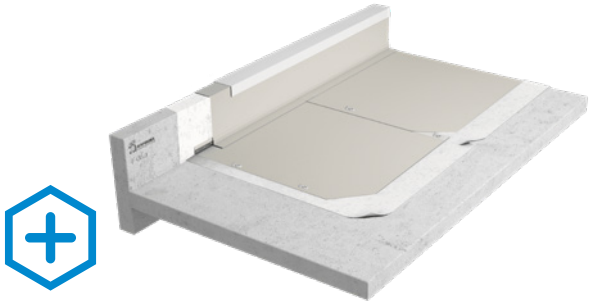
Green Roofs are partially or completely covered with vegetation and a growing medium, installed over a SOPREMA waterproofing system. They are the perfect way to create a sustainable building envelope solution.



RECOVERY SYSTEM

Exposed Roof

Ideal for refurbishment projects, where an existing roofing system is failing or has reached its service life. A cost effective solution, as there is no need to remove and dispose of the existing waterproofing system.



BLUE ROOF SYSTEM

Blue roofs temporarily store rainwater to then gradually release it, significantly reducing the risk of flooding in areas with few permeable surfaces. Blue roofs can also harvest rainwater for indoor use and help manage storm water runoff.

RETHINK ROOFING

Urban sprawl is not a new geographic phenomenon, but it continues to expand and bring about consequences today. The growth of suburbs on the outskirts of cities represents the extension of an urbanised territory onto a rural one. These expansions are characterised, among other things, by individual houses, transport routes designed for cars as well as large paved parking spaces.

Many urban planners and architects are examining this growing geographical phenomenon in order to counter it. It is becoming evident that to tackle the urban sprawl problem, we must rethink our cities, but above all, densify them. So how can we make cities more dense, sustainable, and viable?

ROOFS: AN OVERLOOKED OPPORTUNITY

The surface areas offered by roofs in urban environments are turning into real innovation areas for architects and builders who are working to create the resilient cities of tomorrow. Some see it as a space to practise yoga and hold community workshops, while others would set up bars and gardens. We can even go so far as to imagine more extravagant ways of using these spaces, such as setting up drone delivery stations. Roofs offer multiple possibilities and combinations of uses to create a rooftop ecosystem where each element benefits the others. The use of these overlooked spaces will not be without its obstacles, but the solutions exist and several achievements show that it is possible to rethink the building with the future in mind.

SOPREMA has been seeking to optimise the performance of buildings for many years, particularly to improve their comfort, use and durability while reducing the impact of our activities and products. We are proud to offer solutions that make it possible to carry out your innovation-driven roofing projects.

GREEN ROOFS

Green Roofs offer a wide variety of social, economic and environmental benefits for building owners and communities. In addition to replacing mineral surfaces with permeable and living surfaces on the building, these systems compensate for the loss of ecosystem services caused by urban development.

COOL ROOFS

Our Cool Roofs are designed to reflect more sunlight, absorbing less solar energy and lowering the overall temperature of the building.

SOLAR ROOFS

Our SOPRASOLAR FIX EVO TILT photovoltaic panel support system creates a connection between the panel and the cap sheet membrane without the need to puncture it and the risk of compromising the roof waterproofing.

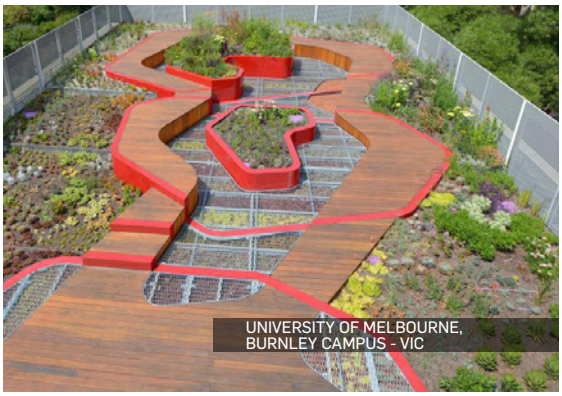
The possibilities offered by roofs are endless and could make it easier to address a vast array of challenges related to housing, energy transition, resilience to climate change, social inclusion, and many more. Roofs have been underutilised for too long: **it is now time to rethink and optimise their purpose.**

GREEN ROOFS

SOPREMA's VEGETATED WATERPROOFING SYSTEMS

Green Roofs are partially or completely covered with vegetation and a growing medium, installed over a SOPREMA waterproofing system. They provide a variety of benefits, from enhancing building performance and increasing asset value to improving the environment. In addition to replacing mineral surfaces with permeable and living surfaces within the properties, they compensate for the loss of ecosystem services caused by urban development.

SOPREMA offers a great green roof design flexibility, from light systems (less than 150 mm) to heavy systems (more than 300 mm), and can be installed on bituminous or PVC waterproofing systems.


UNIVERSITY OF MELBOURNE, BURNLEY CAMPUS - VIC

BENEFITS OF VEGETATED ROOFING SOLUTIONS

STORM WATER MANAGEMENT

Vegetated roofing systems are an effective storm water management solution. During times of heavy rainfall, the vegetated system collects excess water and stores it as a water source for the plants. This minimises the amount of water that is running off the building into local waterways or causing sewage overflow situations.

URBAN HEAT ISLAND EFFECT

When designing a roof in a city, the urban heat island effect must be taken into account. In cities that experience high temperatures year-round or even just in the summer months, it is important to find a roofing solution that cools the building and environment around it. Vegetated roofing systems offer an excellent solution for the urban heat island effect because the vegetation on the roof will absorb the heat instead of displacing it into the surrounding environment.

AESTHETICS & FUNCTIONAL SPACE

By adding vegetation to a roof, it increases the design options to improve the building's aesthetics. This also offers the opportunity to add extra functional square metres to the building, and the added amenity space will in turn increase the property value. Whether it is an apartment complex wanting to provide residents with a rooftop garden or a restaurant looking to utilise the space to provide fresh herbs, the possibilities are endless.

COOL ROOFS

SOPREMA's **REFLECTIVE** WATERPROOFING SYSTEMS

Cool Roofs aim to reduce the urban heat islands effects by lowering the roof's surface temperature.

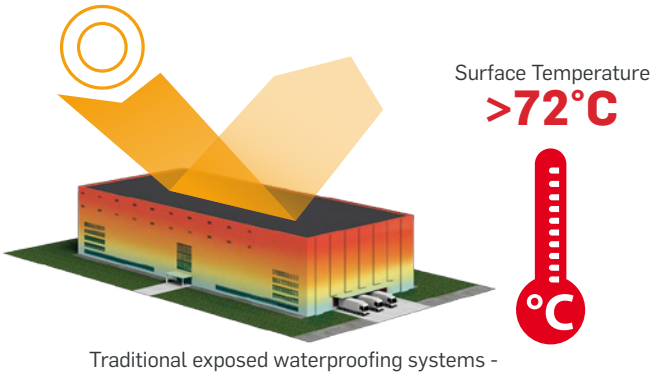
By using waterproofing membranes with high reflectivity (ability to reflect sunlight) and emissivity (ability to radiate heat), Cool Roof systems are capable of reflecting solar heat and keeping roof surfaces cool under the sun.

As the "Cool Roof" remains cold, the heat transmitted inside the building is considerably reduced.

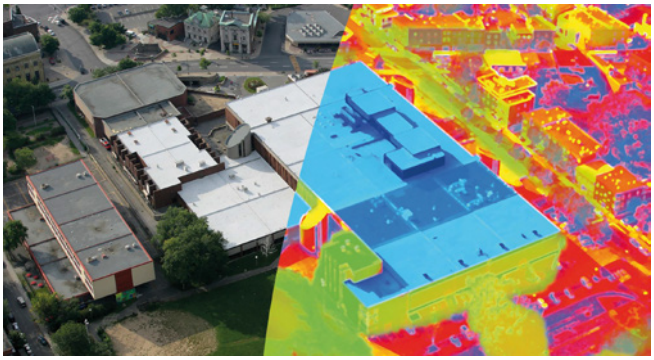
This is precisely what can be seen in the photo below - an infrared thermography showing the temperature difference between a cool roof and the surrounded buildings.

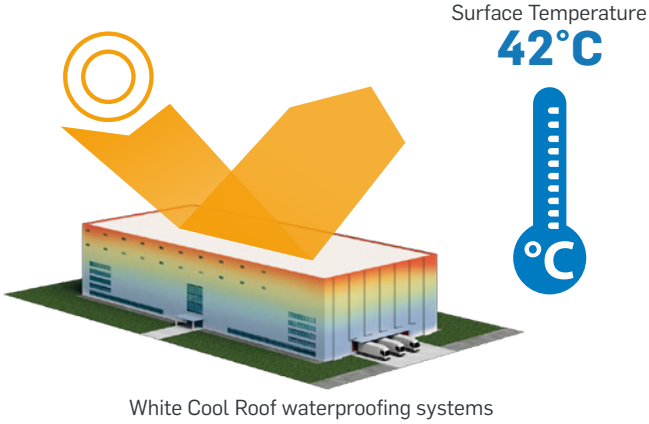
While a roof with dark bitumen membranes can reach a surface temperature of over 80°C, a Cool Roof slows down the temperature increase, reaching a surface temperature of around 40°C.

The range of colours represents the temperatures: from red (hottest) to blue (coldest).



Traditional exposed waterproofing systems - synthetic or bituminous membranes





White Cool Roof waterproofing systems

TRANSFORMING
ROOFTOPS INTO
PRODUCTIVE SPACES

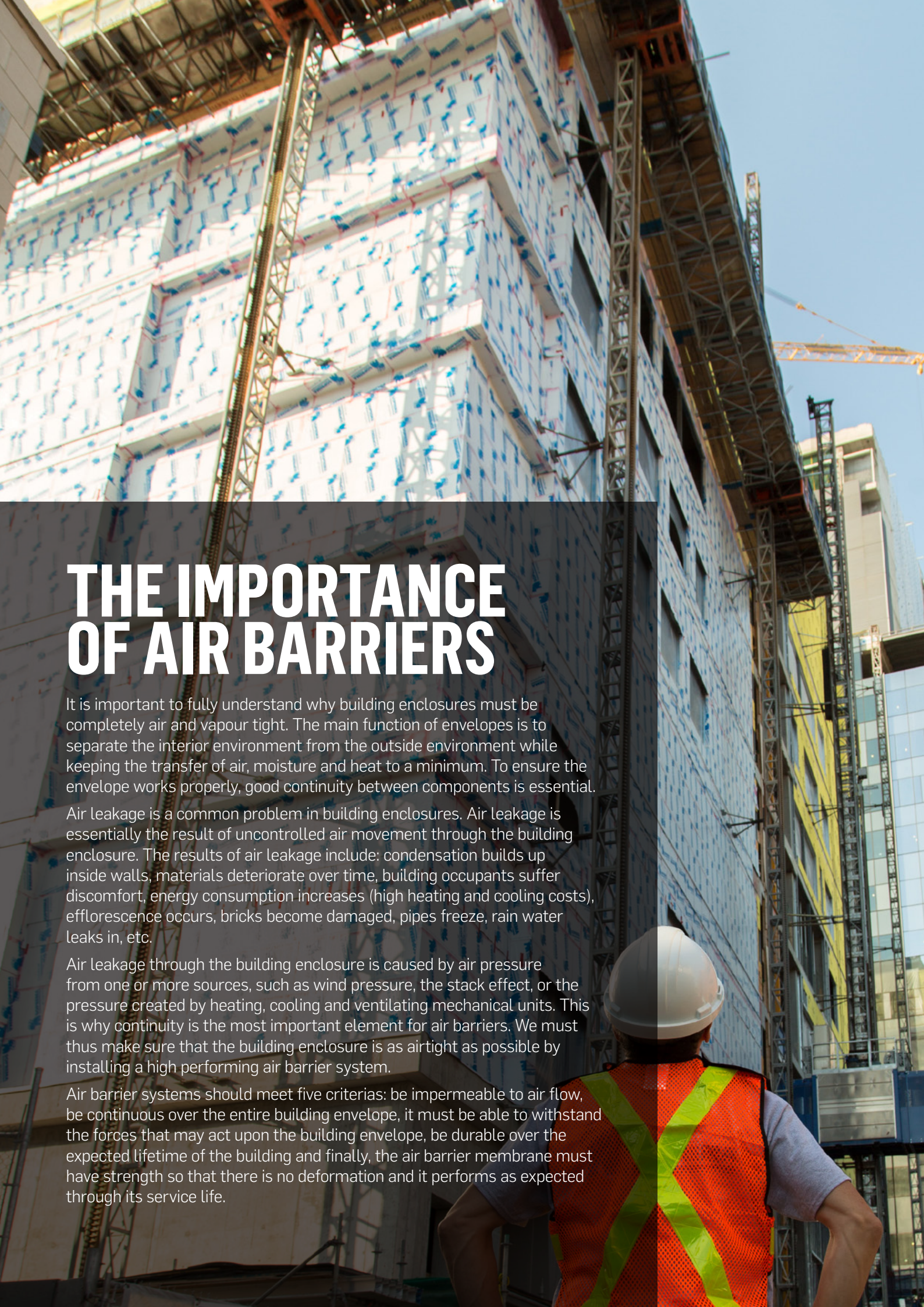
SOPRASOLAR FIX EVO TILT

PHOTOVOLTAIC PANEL SUPPORTS THAT MAINTAIN THE WATERPROOFING PROPERTIES OF THE ROOF

The SOPRASOLAR FIX EVO TILT system is used as a support for photovoltaic panels on roofs. It makes it possible to link the panel and the waterproofing membrane without piercing it, which could compromise the waterproofing system of the roof.

It can be installed on bituminous or PVC waterproofing systems.

- INTACT WATERPROOFING
- NO BALLAST REQUIRED
- READY-TO-INSTALL SOLUTION
- NO THERMAL BRIDGING



THE IMPORTANCE OF AIR BARRIERS

It is important to fully understand why building enclosures must be completely air and vapour tight. The main function of envelopes is to separate the interior environment from the outside environment while keeping the transfer of air, moisture and heat to a minimum. To ensure the envelope works properly, good continuity between components is essential.

Air leakage is a common problem in building enclosures. Air leakage is essentially the result of uncontrolled air movement through the building enclosure. The results of air leakage include: condensation builds up inside walls, materials deteriorate over time, building occupants suffer discomfort, energy consumption increases (high heating and cooling costs), efflorescence occurs, bricks become damaged, pipes freeze, rain water leaks in, etc.

Air leakage through the building enclosure is caused by air pressure from one or more sources, such as wind pressure, the stack effect, or the pressure created by heating, cooling and ventilating mechanical units. This is why continuity is the most important element for air barriers. We must thus make sure that the building enclosure is as airtight as possible by installing a high performing air barrier system.

Air barrier systems should meet five criterias: be impermeable to air flow, be continuous over the entire building envelope, it must be able to withstand the forces that may act upon the building envelope, be durable over the expected lifetime of the building and finally, the air barrier membrane must have strength so that there is no deformation and it performs as expected through its service life.

AIR BARRIER SYSTEMS

SOPRASEAL STICK VP-S FR

SOPRASEAL STICK VP-S FR is a self-adhesive vapour-permeable air-barrier membrane with a tri-laminated polypropylene complex on its surface. Used in wall and roof constructions, it stands out due to its unmatched adhesive properties. Its width and self-adhesive underface, protected by a silicone release film, make it very easy to install. It can be used on most building surfaces, such as masonry, concrete, wood and gypsum.

- Self-sealing membrane ensuring continuous waterproofing
- Better adhesive properties than competitive products
- No primer required
- UV exposure up to 180 days

MAKING WATERPROOFING **A PRIORITY**

It's not uncommon for waterproofing to take a backseat when developing plans and specifications for a building. Yet when it comes to protecting a building's foundation from the impacts of water infiltration, there are good reasons why waterproofing needs to stay top of mind.

The foundation ensures building loads are supported and distributed. It is therefore critical to protect it from water infiltration to avoid cracking and other damage that would have subsequent repercussions on the building.

KEY TO SUCCESS

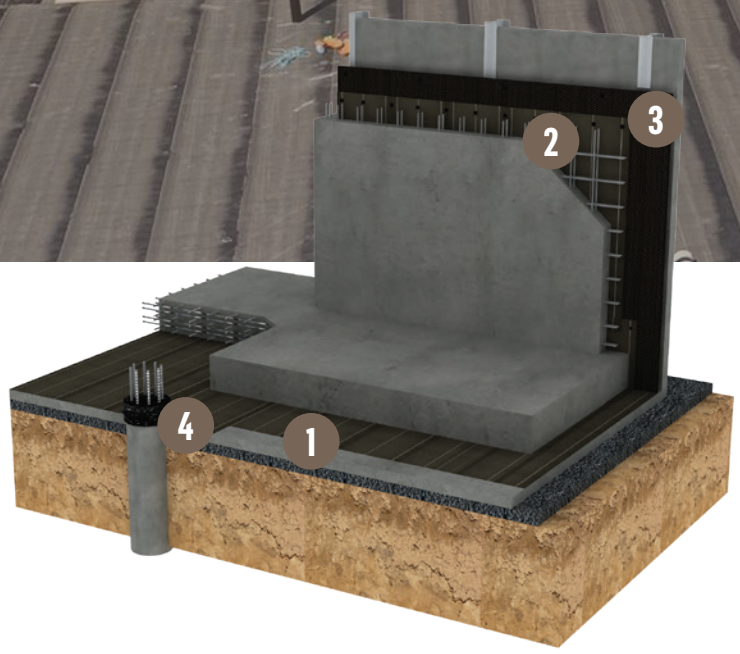
A good initial design begins with good communication between all team members. All team members involved need to be on the same page before and during the project to ensure a successful outcome. Waterproofing needs to be considered at the front end of any building construction project — in the design phase of a project. Designers and architects should consult with waterproofing manufacturers and contractors during the design phase to ensure that all requirements are fulfilled. Many major problems with projects can be traced back to parties failing to talk with one another or pre-construction meetings not being scheduled properly, so take special care to avoid potential oversights early on. When selecting a system design and the materials that will be used for a project, there are a number of questions worth asking yourself in order to make an informed decision.

Consider, for instance, the following:

- What are the site conditions?
- What are the soil conditions?
- What temperature limitations exist?
- What is the hydrostatic pressure at the location?
- What sort of drainage is found on site?
- What will construction sequencing be?
- Are all of the applicable materials compatible?
- What are the code requirements?
- How much is the building expected to move?
- What will be the primary function of the building?

Waterproofing comes with many considerations, each of which needs to be examined carefully to protect critical components and maintain the health of a building. The complexities can be overwhelming, but that's where having the right expertise and materials can seal the deal.

BITUMINOUS WATERPROOFING SYSTEMS



1. Horizontal waterproofing membrane: **COLPHENE BSW UNI NG**
2. Vertical waterproofing membrane: **COLPHENE BSW V**
3. Drainage board: **SOPRADRAIN**
4. Details: **ALSAN EP CAP / ALSAN EP M**

WATERPROOFING

COLPHENE SYSTEMS

Our COLPHENE systems are designed for sub-structure waterproofing in civil engineering projects, for below-grade slabs and walls. The bituminous membranes are compatible with all types of foundations, they are fully bonded to structural concrete and are adapted to hydrostatic water head and construction methodology.

COLPHENE membranes for foundations can be **pre-applied** (ie. laid before the structural concrete is poured) or **post-applied** (ie. installed after the concrete is poured) - depending on the construction methods and building conditions.

BITUMINOUS SOLUTIONS

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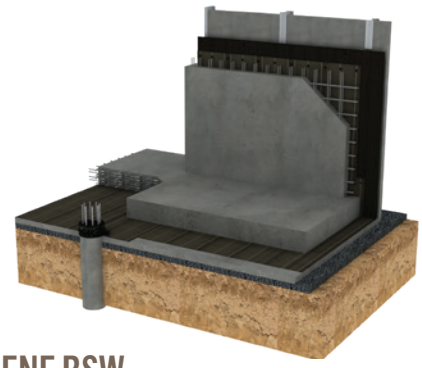


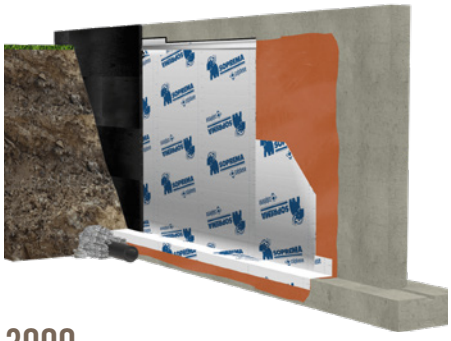
COLPHENE BSW

Pre-applied system

BSW stands for blindside waterproofing, since the waterproofing is done on the exterior before the concrete is poured. This system involves installing waterproofing membranes against a retaining wall, or against an existing wall on an adjacent building, before concrete is poured for the new foundation (pre-applied application). As the concrete cures, the surface of the COLPHENE membranes bond to the foundation, ensuring complete adhesion and eliminating the risk of water moving laterally between the waterproofing membrane and foundation wall.

BENEFITS

- Excellent adhesion to poured concrete
- Increased resistance to hydrostatic pressure
- Superior resistance to tears and punctures
- Increased protection thanks to DUO SELVEDGE technology



COLPHENE 3000

Post-applied system

This type of waterproofing is used when membranes are installed directly on the foundation walls, as they can be accessed after the concrete is poured (post-applied application). It is used in most residential, commercial, industrial and institutional constructions.

Foundation waterproofing membranes are installed on the outside of the building to create positive waterproofing, which means that the hydrostatic pressure created by the water pushes the membrane against the structure.

BENEFITS

- Superior flexibility
- Cold-applied, flameless solution
- Puncture resistant with high tensile strength
- Consistent thickness

SUPERIOR ADHESION

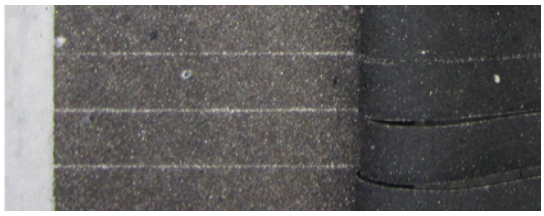
The system benefits from the effects of the exothermic reaction that occurs during the concrete's curing process, providing superior adhesion due to a chemical and mechanical bond between the membrane and structural concrete.

CONTINUOUS BOND

Continuous and homogeneous bond to structural concrete.

ADHESIVE STRENGTH

Excellent adhesion to the poured structural concrete surface according to ASTM D903 standard.



The top face of the membrane is made of SBS-modified bitumen and covered with specially engineered carbon dioxide crystals. The specially formulated surface softens slightly as the concrete begins to cure, releasing heat. This contributes to the adhesion of the membrane to the concrete, and prevents the ingress or migration of water around the structure.

FOUNDATIONS WITH LIMITED ACCESS: THE IDEAL SOLUTION

Sydney, Melbourne, Brisbane and Perth CBDs are all examples of major Australian cities where space is sometimes restricted on construction sites. In most construction projects located within large urban centres, access to the exterior walls of the foundation is difficult. Under these conditions, a high-performance pre-applied foundation waterproofing systems like COLPHENE BSW must be used.

Sirius Sydney,
Sydney, NSW

Sirius Sydney is an apartment complex in The Rocks district, which sits up close and personal to the city's most spectacular panoramic views to Circular Quay, Sydney Opera House and through Kirribilli Point.

CIVIL ENGINEERING STRUCTURES

WATERPROOFING SOLUTIONS FOR BRIDGES AND UNDERGROUND STRUCTURES

Waterproofing civil engineering structures is essential, because it protects concrete and its steel reinforcement, while preventing its premature degradation. Waterproofing membranes are flexible and protect the concrete with its microcracks by moving with it, preventing water and deicing salt from entering and corroding the steel reinforcement.

Whether to waterproof or protect bridges, dams, parking lots, tunnels or civil engineering structures, SOPREMA has developed a wide range of products to adapt to the various types of civil engineering structures, in bituminous and PVC solutions. Our products can be adapted to any design, regardless of the size or complexity of the works.

FLAGON SYNTHETIC MEMBRANES

REPAIRABLE SYSTEMS FOR TUNNELS

FLAGON synthetic membranes are used as the waterproofing layer in the construction of bored tunnels and linings. The membranes offer multiple possibilities, capable of providing technical solutions for even the most demanding projects.

Additionally, the membranes can have specific features to meet the requirements of particular standards. FLAGON also offers all of the accessories and equipment necessary to carry out the projects: joints, injection hoses, laminated sheets, hot air welding and testing equipment.

TUNNEL REFERENCES

AUSTRALIA

- Sydney Metro: Martin Place, Victoria Cross, Pitt Street, Crows Nest and Waterloo Station sites
- Cross River Rail, Brisbane: Albert Street and Boggo Road station sites and tunnel cross passages
- Melbourne City Link

WORLDWIDE

- Thames Tideway Tunnel - UK
- Liverpool Street Station - UK
- GRA (Trionfale-Cassia-Boccea) - Rome, ITALY
- 3 tunnels de l'A89: Bussière, Chalosset et Violay - FRANCE
- North-South transmission cable - SINGAPORE
- Katschbergtunnel - AUSTRIA
- Panagopoula Highway Tunnel - GREECE
- Dublin Port Tunnel - IRELAND
- Sao Paulo Metro - BRAZIL
- Hangzhou Metro - CHINA

CASE STUDY

SYDNEY METRO FLAGON PVC TUNNELLING SYSTEM

SYDNEY METRO IS AUSTRALIA'S BIGGEST PUBLIC TRANSPORT PROJECT, REVOLUTIONISING THE WAY AUSTRALIA'S LARGEST CITY TRAVELS

From the north-west, metro rail is being extended under Sydney Harbour, through new underground city stations and beyond to the south-west. Its total railway network will cover more than 66 km and serve a capacity of 40,000 customers per hour with its 31 metro stations.

SOPREMA's FLAGON PVC tunnelling system was installed in a few of the deepest stations on the city's metro train line, which are expected to host large buildings above the stations: Martin Place, Victoria Cross, Pitt Street, Crows Nest, and Waterloo Station sites.

Thanks to its flexibility and high mechanical resistance to geological movement and high hydrological pressure, SOPREMA's FLAGON PVC system was chosen to waterproof these challenging underground structures.

SOPREMA initiated a change to market trends and offered a proven technology for waterproofing underground structures that is easier to install. JHCPBG's Project Manager was impressed by SOPREMA's overall service and was pleased to be associated with the introduction of an innovative product and a new company to the Australian tunnelling industry.

PROJECT DETAILS

Project name: Sydney Metro City & Southwest - Tunnel and Station Excavation Works (TSE)

Scope of works: Waterproofing of underground works and infraestructure; Martin Place, Victoria Cross, Pitt Street, Crows Nest and Waterloo Stations.

Products: FLAGON BSL, GEOLAND PP FR, FLAGON PVC PZ, FLAGON COMPARTMENT JOINT, FLAGON ANCHOR and PREDIMAX INJECTION HOSE.

FLAGON TUNNEL

SINGLE LAYER SYSTEM

This single layer system is used when the installation needs to be monitored after completion and provide solutions for the necessary repairs. With the use of FLAGON tunnel accessories, the integrity of the system can be monitored throughout its working life, repair operations can be carried out even after completion of the project without the need for expensive excavations

Installer-friendly

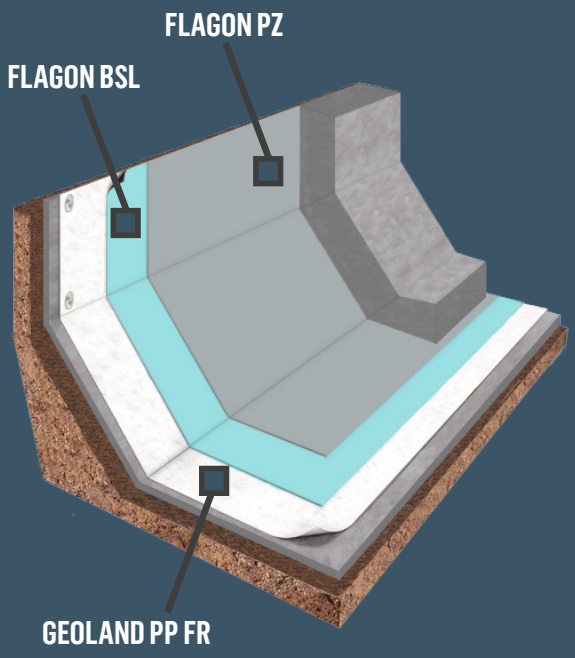
- High weldability and flexibility
- Signal layer to identify punctures
- Can be applied on wet and irregular substrate

Repair-ready

- Repairable without excavation or destructive procedures
- Compartmented
- Embedded injection system

Highly reliable

- High mechanical resistance
- Long service life
- Withstands root perforation and micro-organisms



DOUBLE LAYER SYSTEM

Two layers of waterproofing membranes are used as a “double-ply” system. The additional layer (FLAGON PZ) offers the possibility of carrying out tests throughout the construction phases and also after completion, avoiding extra excavation and uncontrolled injection materials.

The advantages of this system are that it allows to the contractor to control the water tightness of the installed waterproofing and to carry out repairs quickly and easily without the need for costly excavation.

Manosque Viaduct
Gréoux-les-Bains (France)

ANTIROCK BITUMINOUS WATERPROOFING

SYSTEMS FOR BRIDGES

SOPREMA has been using bituminous membranes covered with asphalt on civil engineering structures for over 100 years. Bitumen products modified with SBS polymers offer peace of mind thanks to their excellent durability, versatility and high resistance to harsh weather conditions.

ANTIROCK products—which have been used and recognised worldwide for more than 30 years—include a choice of heat-welded membranes, primers, and SBS-based waterproofing accessory products. They can be installed on road bridges, rail bridges, parking decks or slabs directly underneath one or more layers of asphalt bituminous mixtures.

vicroads
SECTION 691
APPROVED

BENEFITS

- Used directly underneath asphalt
- Mechanical strength to withstand the movement of the support
- Resistance to chemical and biological agents (hydrocarbons, salts, etc.)
- Resistance to thermal shock and puncture

TIME AND LABOUR SAVINGS WITH THE MINI-MACADEN®

Available for hire.

The **MINI-MACADEN®** is a specialised piece of equipment which allows the automated installation of SOPREMA's heat-welded membranes.

Self-propelled and self-guided, it unwinds, weld and smooths base sheet and cap sheet membranes.

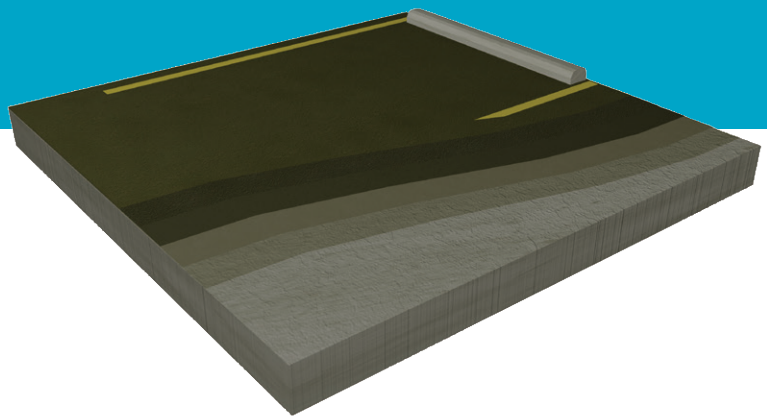
MINI BUT MIGHTY

- **Quick:** With the MINI-MACADEN®, it is possible to install up to 1,000 m^2 of membrane per day, with four operators.
- **Versatile:** It can be used on bridges, overpasses, parking decks, and roofs at any time, regardless of temperature or wind conditions.
- **Efficient:** It offers constant installation quality over the entire structure.
- **Safe:** It reduces the use of flame and the need for manual operations.
- **Economical:** It reduces labour and materials.
- **Ecological:** It is equipped with electric and gas motors.

PARKING DECKS

ALSAN TRAFIK HP 500

ALSAN TRAFIK HP 500 is a highly resistant liquid waterproofing system. Part of SOPREMA's ALSAN line of polyurethane waterproofing products, it consists of a primer coat and three single-component polyurethane coats. Due to its superior elongation properties and high abrasive resistance, ALSAN TRAFIK HP 500 system waterproofs and protects concrete structures exposed to both pedestrian and vehicular traffic.



BENEFITS

- **Highly resistant:** Resists puncture, wear, temperature variations and UV rays by providing optimal protection, even in high traffic areas.
- **Lightweight, heavy-duty system:** Weighing only 2kg/m^2, is a lightweight, heavy duty system that does not need to be covered with concrete or asphalt.
- **Eliminates risk of water infiltration:** The perfect solution for waterproofing upstands and complex details. This liquid waterproofing technology provides a smooth, seamless membrane that reduces the risk of any infiltration.
- **Worry-free application:** Single-component, polyurethane waterproofing products that require no on-site mixing, facilitating installation and reducing the risk of curing issues.

CASE STUDY: WAREHOUSE

Robatech, Silverwater, NSW

Robatech is a warehouse and office space complex with its headquarters located in Silverwater NSW. Waterproofing the warehouse space was done quickly and efficiently with the ALSAN TRAFIK HP system.

ALSAN® RS

BALCONIES AND PLAZA DECKS

The ALSAN® RS rapid curing liquid-applied waterproofing systems, composed of different polymethyl methacrylate (PMMA) based resins, are a cutting-edge waterproofing solution. With dramatically fast cure times, these new liquid-applied systems waterproof and protect roofs, balconies and terraces from water.

ADVANTAGES

- Rapid curing to meet deadlines
- Seal and protect from water
- Flexible as it is reinforced with polyester
- Ideal for hard-to-reach places.

CASE STUDY: TERRACE

Craigdarroch Castle, BC, Canada

The legendary Canadian Craigdarroch Castle dating from the 19th century is a historic site offering an unforgettable experience to its visitors. Built in the 1800s, the castle has undergone numerous renovations over the years. Most recently, the terrace has been restored. With an area totalling over 130 m^2, the Craigdarroch Castle terrace needed a liquid waterproofing solution given its particular surface. ALSAN RS was the ideal solution to quickly seal the terrace to minimise impacts on visitors.

INSULATION SOLUTIONS

Insulating buildings with durable, efficient and high-quality products and systems becomes increasingly important to help premises become future-proof, making it more energy-efficient and sustainable, and to adapt it to the changing climate.

Our SOPRA-ISO insulation range is fully compatible with multiple SOPREMA roofing and waterproofing systems, providing industry professionals with a total insulation and waterproofing solution. In addition, we lead the way in natural insulation with PAVATEX, a range of wood fibre insulation products with excellent thermal and acoustic performance.

CASE STUDY: WARM ROOF

RSL ANZAC Village, Narrabeen, NSW

Failed waterproofing membranes are always an opportunity to greatly improve the roofing system and consequently the building's energy efficiency.

This is the case of RSL ANZAC village residents, who are now enjoying the comfort of a Warm Roof system. By adding an insulation layer when refurbishing the roof, the building is now able to preserve warmth during winter, and prevent heat gains during summer; consequently, spending less on heating and cooling throughout the year.

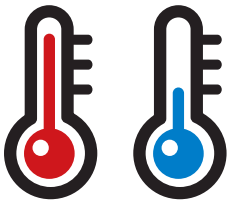
WARM ROOFS

SOPREMA's INSULATED WATERPROOFING SYSTEMS

In a warm roof system, the thermal insulation layer is installed above the structural deck and under the roofing waterproofing system, preserving warmth through the insulation board and protecting the building from the elements through the waterproofing membrane.

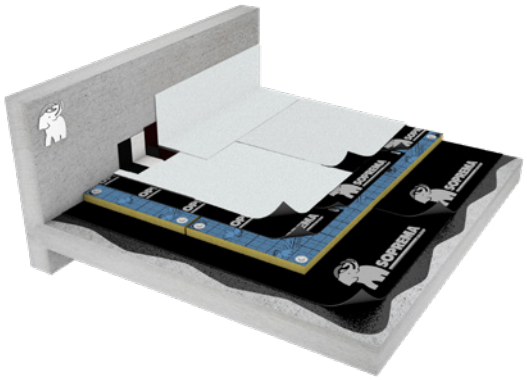
Unlike a traditional "cold roof" design where the insulation is only placed between rafters, a warm roof has an insulation layer across the entire roof. A cold roof construction is far less effective in the colder months, while a warm roof makes the most of the weather for a consistent temperature indoors through all seasons.

As it prevents heat loss during winter and heat gains during summer, a warm roof makes the building structure more energy efficient as you'll spend less on heating and cooling in the different seasons.

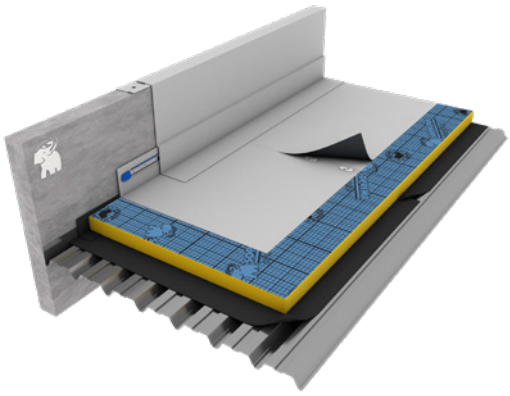


THE FULL SYSTEM IS MANUFACTURED, SUPPLIED AND WARRANTED BY SOPREMA, GIVING PEACE OF MIND TO PROPERTY OWNERS.

SOPREMA ASSEMBLIES

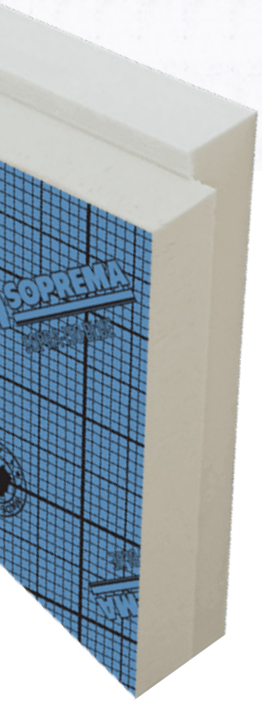


SBS/APP WARM ROOF SYSTEM



FLAGON® PVC WARM ROOF SYSTEM

R YOU READY?



SOPRA-ISO BLUE

SOPRA-ISO BLUE is a high performance thermal insulation board, composed of closed-cell polyisocyanurate (PIR) foam.

It is laminated on both sides with a textured aluminium facer, providing great fire resistance. The blue upper-facing provides a glare-free surface, easing the installation process.

SOPRA-ISO insulation boards are designed for all types of buildings, whether commercial or residential.

THICKNESS	R VALUE
50 mm	R_d 2.35 m^2K/W
60 mm	R_d 2.85 m^2K/W
70 mm	R_d 3.30 m^2K/W
80 mm	R_d 4.00 m^2K/W
90 mm	R_d 4.50 m^2K/W
100 mm	R_d 4.85 m^2K/W

- ✔ SUPERIOR THERMAL PERFORMANCE WITH MINIMAL THICKNESS
- ✔ SUPERIOR COMPRESSIVE STRENGTH AND GREAT DIMENSIONAL STABILITY
- ✔ GREAT FIRE RESISTANCE

WITH SOPREMA'S COMMITMENT TO SUSTAINABILITY, SOPRA-ISO INSULATION BOARDS ARE LBC RED LIST FREE

Red List Free
Declare.

The Living Building Challenge (LBC) Red List is a compilation of the 'worst in class' materials, chemicals and elements in the building industry, known to pose serious risks to human health and the greater ecosystem.

pavatex by SOPREMA

SUSTAINABLE SOLUTIONS

The performance spectrum of PAVATEX thermal systems is unique. They protect against cold, heat, noise and fire hazards. They are simultaneously vapour-permeable yet airtight so they are the ideal components for the modern building shell.

PAVATHERM

Made from wood – a sustainable raw material – PAVATHERM insulation boards stand for a responsible use of natural resources, low energy use and a positive CO2 balance.

Thanks to the natural constituents, PAVATHERM products can be recycled, composted or even incinerated for energy production.

PAVATEXTIL P

PAVATEXTIL P is a thermo-acoustic insulation panel made of recycled cotton.
It comes from the collection, recycling and recovery of textiles at the “end of life”, mainly jeans, which are sorted frayed and revalued.

This innovative recycling solution for cotton textiles destined to incineration gives a second life to a quality raw material,

PAVATEXTIL P offers a healthy, high performance insulation solution with a positive impact to the environment.

SOPREMA PROJECTS

Edgecliff, NSW
Bituminous Waterproofing

Kirribilli, NSW
Synthetic Waterproofing (PVC)

Shenton Park, WA
Green Roof - Bituminous Waterproofing

ROOFS

GREEN ROOFS

SOPREMA's bituminous and synthetic systems offer great waterproofing design tailored to your needs.

Our roofing waterproofing systems have been designed to meet the normative requirements and environmental challenges of the Australian climate, with membranes that boast exceptional performance in terms of strengths, reliability and service life.

Canberra, ACT
Foundations - Pre-applied Blindside Waterproofing

FOUNDATIONS

Sydney, Melbourne, Brisbane, Canberra and Perth CBD are all examples of major Australian cities where space is sometimes restricted on construction sites.

In most construction projects located within large urban centres, access to the exterior walls of the foundation is difficult. Under these conditions, a high-performance pre-applied foundation waterproofing system must be used.

Sydney Metro
Waterproofing in the Martin Place, Victoria Cross, Pitt Street, Crows Nest and Waterloo Station sites.

UNDERGROUND STRUCTURES

Thanks to its flexibility and high mechanical resistance to geological movement and high hydrological pressure, SOPREMA's FLAGON BSL system was chosen to waterproof these challenging underground structures.

- The waterproofing system can be repaired, even years after its installation, without any excavation or destructive investigation.
- The system allows for application onto wet or irregular substrates.
- Quality control of the waterproofing system is very reliable and easily achieved.
- High mechanical resistance to geological movement and high hydrological pressure are present.
- The system is cost efficient, on both materials and installation time levels.
- The system has a long service life.

Cross River Rail, Brisbane
Waterproofing in the Albert Street and Boggo Road Station sites and tunnel cross passages.

SOPREMA®

GET IN TOUCH!

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INFO@SOPREMA.COM.AU

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