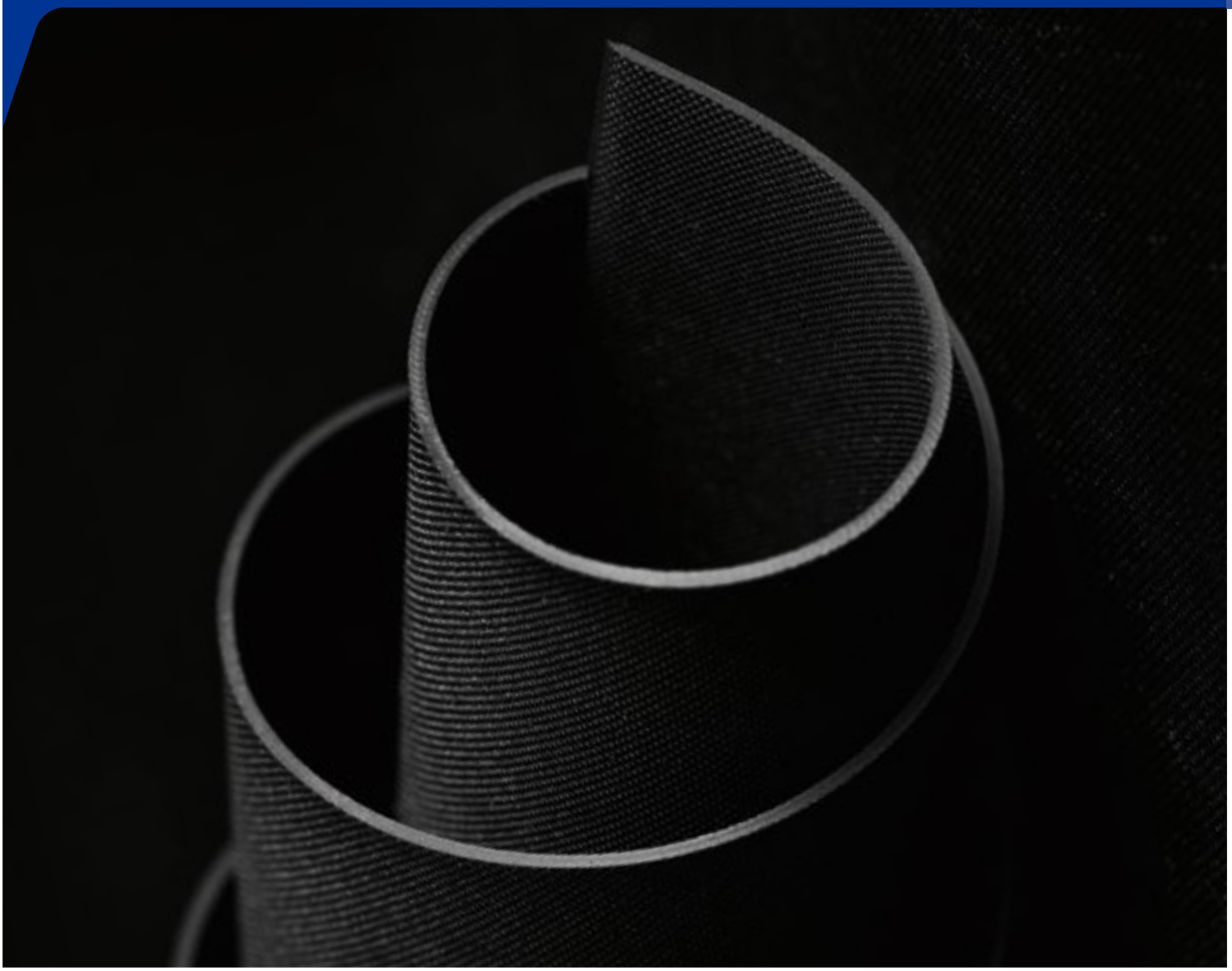
Building Designs Inspired by EPDM

WATERPROOF SOLUTIONS FOR
ARCHITECTS, BUILDERS, CONTRACTORS AND DISTRIBUTORS



www.ccm-europe.com

CARLISLE CM EUROPE

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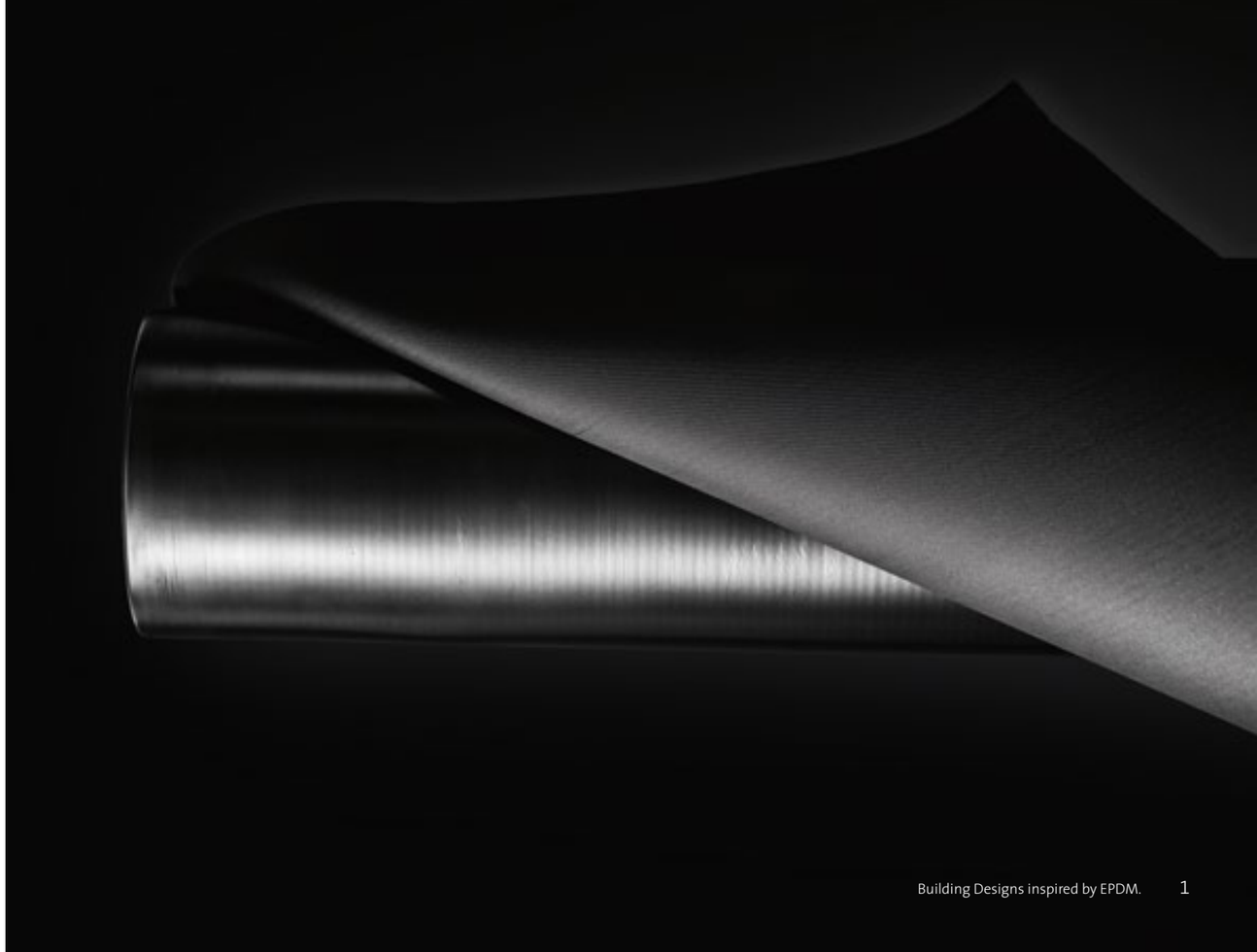
Nowadays, architects are always striving to strike the right balance between the designs and its commercial feasibility. Any creative design has to be in sync with legal and commercial requirements.

As a strong partner, CARLISLE® Construction Materials Europe (CCM Europe) provides you with support from the concept to implementation with waterproof and airtight solutions and offers you innovative, long lasting EPDM products that can be used with extreme ease to combine creative freedom and planning related reliability.

Ideas are taking shape – with EPDM.



A material for all challenges.

A waterproofing system has to withstand a great deal. An extremely wide variety of weather conditions, as well as thermal and mechanical influences, lead to severe material movements and can quickly age conventional systems. It is here that the unique material EPDM shows just how versatile it really is. The synthetic ethylene propylene diene monomer (EPDM) rubber has excellent material properties due to its molecular mesh structure – and is unbeatable in terms of elasticity and resistance to ageing. The EPDM manufacturing process won a Nobel Prize in 1963 – and with good reason too.

VERSATILE, FLEXIBLE, DURABLE – AND EASY TO APPLY

The synthetic rubber EPDM is highly UV-resistant and weatherproof, and can be put to flexible use in a variety of waterproofing situations due to its exceptional elasticity of up to 600%. The Plastics Centre (SKZ) in Würzburg, which has tested our EPDM membranes in a long term study, has acknowledged that the material has a service life of more than 50 years. Due to its long lasting durability, the synthetic rubber has a positive environmental impact and can be recycled in an eco-friendly manner too. The fact that EPDM membranes can be applied without any naked flames provides additional work safety.

BIG SHEETS, THANKS TO THE HOT BONDING PROCESS

Hot bonding is a process wherein EPDM strips are homogeneously bonded with one another by means of hot vulcanisation for the purpose of creating large size sheets, resulting in completely new design possibilities in creative buildings. High pressure and precise preset temperatures ensure that a completely leakproof connection is created. A consistently high level of quality is guaranteed due to constantly identical conditions and continuous quality control in our production plant.

FIVE STRONG BRANDS – A VARIETY OF APPLICATIONS

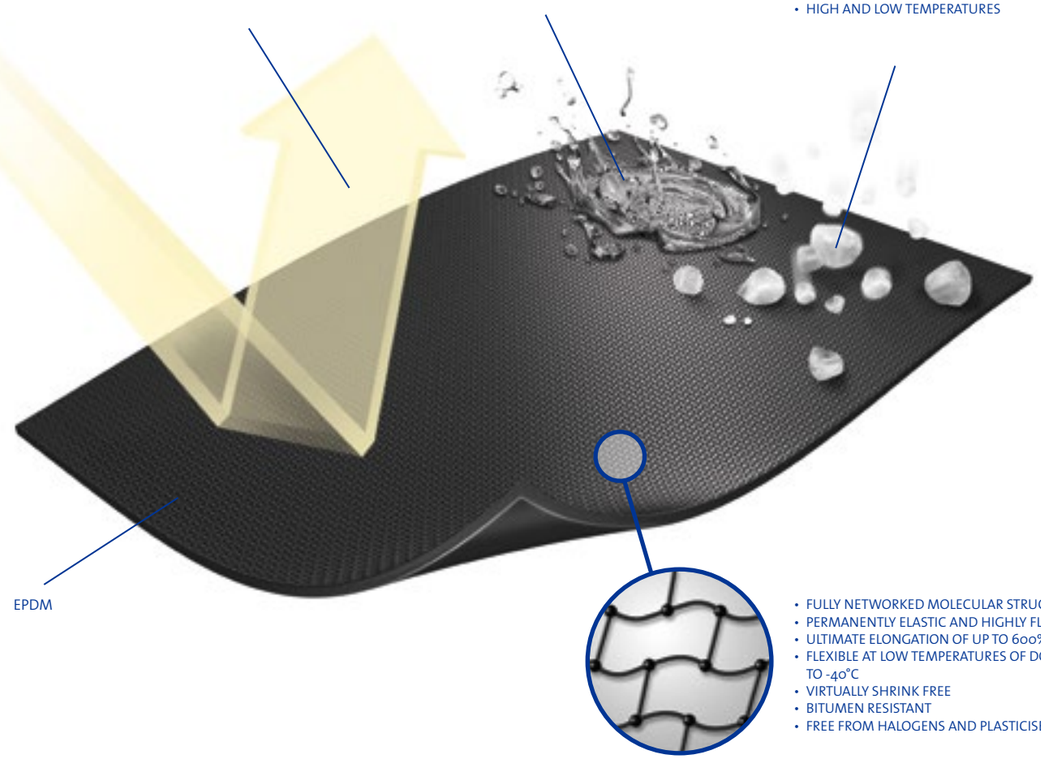
For more than 50 years, we have been pouring all of our experience and our passion for EPDM into the development and manufacture of sustainable waterproofing systems. Whether it's a green roof or a façade, a flat roof or a pitched roof, a refurbishment or a new build project – the applications for our sophisticated products of the RESITRIX®, HERTALAN®, ECOLAN®, ALUTRIX® and HARDCAST® brands are virtually unlimited.

THE ADVANTAGES OF EPDM AT A GLANCE
DURABILITY (CERTIFIED SERVICE LIFE OF MORE THAN 50 YEARS)
PERMANENTLY ELASTIC WITHOUT PLASTICISERS
ULTIMATE ELONGATION UP TO 600%, PRACTICALLY FREE FROM SHRINKAGE
UV, ACID AND ALKALI-RESISTANT AS WELL AS WEATHERPROOF
RESISTANT TO ROOTS AND CHEMICALS
RELIABLE APPLICATION WITHOUT ANY NAKED FLAMES
NO SHATTERING
SUSTAINABLE (EPD CERTIFIED AND DGNB COMPLIANT)

PERMANENTLY RESISTANT TO:
- UV RADIATION
- OZONE RADIATION

HIGHLY RESISTANT TO A MULTITUDE OF CHEMICALS

HIGHLY DURABLE AND LONG LASTING IN ALL WEATHER CONDITIONS
- RAIN
- HAIL, ICE AND SNOW
- HIGH AND LOW TEMPERATURES



Sealed, all around.

From flat roofs to façades, and from garages and building waterproofing to garden ponds – CCM Europe offer planners and architects creative applications for every part of a building.

1. RESITRIX® SR – grey and reflective waterproofing membrane beneath a photovoltaic system
2. HERTALAN® Rhinobond induction fixing system or RESITRIX membranes for roof waterproofing
3. CCM stainless steel drainage elements
4. CCM stainless steel accessory – outlet vent
5. Root-resistant RESITRIX® SK W Full Bond strip or HERTALAN® EASY COVER sheet as roof and terrace waterproofing
6. Tailor-made HERTALAN® EASY COVER sheet
7. RESITRIX® SK W Full Bond building waterproofing in the area in contact with the ground
8. Terrace waterproofing with RESITRIX® or HERTALAN®
9. Balcony waterproofing with RESITRIX® or HERTALAN®
10. Window sealing with our complete range of ARBO® adhesives and sealants
11. Root-resistant RESITRIX® SK W Full Bond or HERTALAN® waterproofing for green underground car parks
12. ECOLAN® EPDM pond lining
13. HERTALAN® EPDM façade system

Big picture.

From the simple warehouse and an entire production facility, to an office complex – flat roof projects of any size can be successfully implemented with roof waterproofing systems from CCM Europe.

In addition to extreme flexibility and durability, they are characterised by a particularly quick and easy application process without any naked flames. This is a decisive advantage in time-critical and sensitive production processes such as those encountered in the chemicals, mechanical engineering or food industry.

ROTTERDAM MARKET HALL, THE NETHERLANDS

A concept that combines work, leisure and living under one spectacular roof is formative for the futuristic building typology of the market hall in Rotterdam. On a surface area of around 8,400 m², the hall offers space for 100 market stalls, while the lower level houses a supermarket and a car park for 1,200 vehicles. There are also 228 residential units in the building, which all have a balcony. RESITRIX® membranes and HARDCAST® tapes were used here.

Architecture firm: MVRDV

MICROSOFT HEADQUARTERS, MUNICH, GERMANY

"Smart workspaces" is the concept that is set to give as much free space as possible to the 1,900 employees in Microsoft's new headquarters in Germany. To ensure that the work / life balance is right, places where people can retreat to focus on their work, teamwork areas and lounges were thought of, as were an in-house fitness studio and eleven roof terraces. Around 5,000 m² of the root-resistant waterproofing membrane RESITRIX® SK W Full Bond were applied to the flat roof, the balconies and the lavish landscaped terraces.

Architecture firm: GSP Architekten

SHIMANO'S EUROPEAN HEADQUARTERS, EINDHOVEN, THE NETHERLANDS

As a manufacturer of bicycle components, fishing and snowboarding products, the Japanese company Shimano relies on proximity to nature. This also rang true during the construction of the new European headquarters on the High Tech Campus – an innovative district in the green south of Eindhoven. Not only does the centre cut an impressive figure due to its airy nature; its sustainability is amazing too. Indeed, the building should produce around 50% more energy than it consumes, and was awarded the BREEAM four star certificate. While the centre was being built, the contractors mechanically fixed 2,500 m² of the EPDM waterproofing membrane RESITRIX® MB to the insulation.

Architecture firm: RAU Architects Amsterdam

Strong statements in black.

HAZELWOOD FARMHOUSE, DUMFRIESSHIRE, GREAT BRITAIN

Deep black rubber and dilapidated masonry, traditional architecture and innovative waterproofing technology – the contrasts could hardly be greater. The old Hazelwood Farmhouse was nothing more than a ruin when owner Lily Jencks decided to build a new home within the stone walls. The building envelope was created with a wooden frame design first of all, then it was complemented by steel frame structures and finished with OSBs. To ensure that the façade and the pitched roof were capable of withstanding the harsh Scottish climate, they were then covered with HERTALAN® EASY COVER tarps.

Architects: Nathanael Dorent, Michael Leybourne

EPDM façade systems are not only permanently elastic and waterproof; they are extremely interesting for architects from an aesthetic standpoint too.

The weather resistant material can be used to create a smooth transition from the roof, over the façade, to the building waterproofing in the area in contact with the ground. This opens up new and exciting opportunities for building envelope design. Unusually soft edges and smooth, surprisingly soft looking surfaces in distinctive black break away from visual norms.

THE BLACK HOUSE, KÖNIGSWINTER, GERMANY

(still under construction when the photo was taken)
Clear shapes and a clear message: On a surface area measuring 450 m², the self-adhesive RESITRIX® SK W Full Bond waterproofing membranes and ALUTRIX® vapour barrier membranes were used in the Black House in Königswinter.

Architecture firm: daunddort architekten Plachetka Dalichau

POPCLUSTER 013, TILBURG, THE NETHERLANDS

A well insulated eye catcher: A decorative touch is added to Popcluster 013 – an events hall for pop concerts by means of an extravagant, black, Chesterfield-style EPDM façade. The façade structure consists of brickwork onto which a timber frame with an intermediate insulating layer made of mineral wool was affixed. Special anchors and CDs to mark the fixing points hold the cladding in place with HERTALAN® EPDM membranes. In total, 1,630 m2of HERTALAN® EASY COVER were applied for the expressive project.

Architecture firm:
Benthem Crouwel Architects

Everything’s OK in the green space.

Green roofs create living space. Not only do they visually enhance the building architecture; they also help to create a healthy environment.

A variety of ecosystems and new recreational areas are created for people using root-resistant EPDM products – so that they can relax or tend to their urban gardens. While green areas on roofs keep the heat in the building in the winter, they serve as a heat shield and humidifier in summer and thus make a valuable contribution to saving energy.

LIBRARY AT THE TECHNICAL UNIVERSITY, DELFT, THE NETHERLANDS

The spectacular green roof on the library at Delft University of Technology in the Netherlands impressively demonstrates the possibilities of sustainable architecture. The green space is both a roof and an area where students can relax at the same time. 5,500 m² of RESITRIX®, root-resistant EPDM waterproofing membrane, were applied.

Architecture firm: Mecanoo

“NATURAL RETREATS” HOLIDAY HOME DEVELOPMENT, NORTH YORKSHIRE, GREAT BRITAIN

The lodges of the “Natural Retreats” holiday home development nestle into the green landscape of the Yorkshire Dales at the heart of wild moors and rolling river valleys. The installer opted for the EPDM sheet system HERTALAN® EASY COVER, which was used to waterproof the lodges more or less in a single work step, to waterproof their cosy yet chic bungalows with green roofs.

Architecture firm: SDS Design

APIARY, APELERN, GERMANY

The apiary in Apelern is multi-faceted: The thermal insulation between the rafters is made of rock wool with a climate membrane vapour barrier, while the common rafters below the ceiling were plastered with clay. The solid framework with an initial covering of bitumen on to which RESITRIX® SK W Full Bond was then applied on a surface area of 210 m2.

Planning firm: Dipl.-Ing. (FH) Tobias Stolze

KELLEBEEK COLLEGE, ROOSENDAAL, THE NETHERLANDS

Curved façades, a light flooded entrance area and spacious, laid back roof areas with greenery – Kellebeek College is making learning a pleasant experience for its students. The educational institution's 750 m² roof, which was created using root-resistant RESITRIX® SK W Full Bond waterproofing membranes, won second place in the vote for The Netherlands' "Roof of the Year".

Architecture firm: Jeanne Dekkers Architecture

The best connections guaranteed.

ROTTERDAM CENTRAL STATION, THE NETHERLANDS

The new Rotterdam Central Station – a modern transport hub and an architectural masterpiece at the same time. The tapered hall roof clad with stainless steel slats and a 28,000 m² retractable roof structure made from multi-layer glass panels are real eye-catchers. To waterproof the steel drainage channels, which measure three kilometres long in total, CARLISLE® made a special shape that could be used to prefabricate the drainage details for the gutters made of HERTALAN® EPDM using the hot bonding process. The roofing company lined the gutters with HERTALAN® EPDM strips and the prefabricated elements, and bonded everything in the factory hall with HERTALAN® contact adhesive to create a modular system. On the roof of the station, the 120 gutter elements only had to be connected with EPDM strips later on. In total, approximately 4,500 m² of HERTALAN® EPDM were applied.

Architecture firm:
TEAM CS (Benthem Crouwel Architects, Meyer en Van Schoten, West 8)

Station concourses need a reliable waterproofing material that moves easily together with the enormous movements made by the roof structures.

Water resistant EPDM membrane systems from CCM Europe are predestined for waterproofing station buildings, since they prove their reliability even when the steel structure is exposed to severe loads.

With their permanently elastic behaviour with an elasticity of up to 600% and their extreme resistance to weathering, they create the best conditions for a durable watertight roof. Good connections aren't just important when it comes to rail transport; they are just as essential on the roof too.

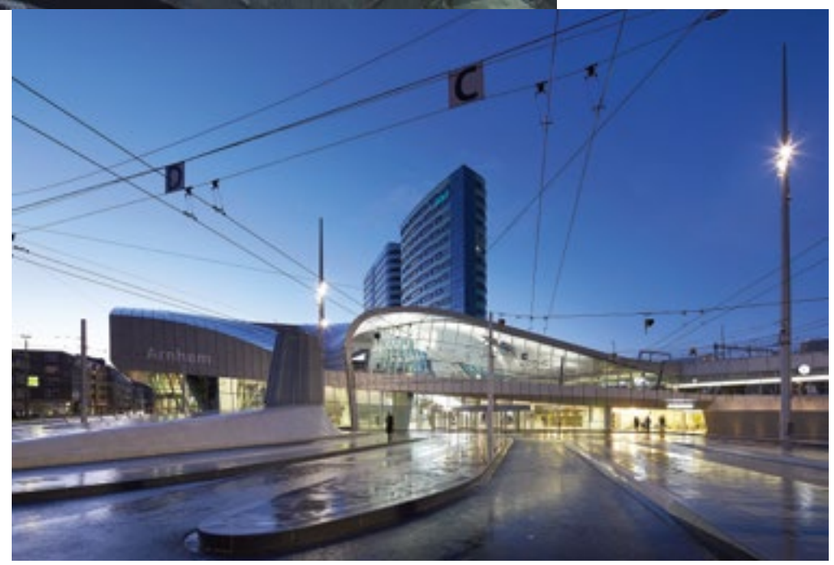
HAMBURG CENTRAL STATION, GERMANY

With 450,000 passengers and 720 local and long distance transport trains per day, Hamburg Central Station is one of busiest passenger stations in Germany. The roof of this main transport hub consists of 32,000 m² of RESITRIX®, which was mechanically fastened to a steel structure with wooden formwork. For more than 20 years, the roof has been leak tight and, due to its flexible material structure, moves together with the roof structure – even in a strong Hamburg breeze.

ARNEHEIM CENTRAL STATION, THE NETHERLANDS

With its mixture of office spaces, shops, flats and platforms, plus its bicycle station and multi-storey car park, Arneheim Station is an extremely hybrid structure that required a multitude of flexible detail solutions. 3,000 m² of RESITRIX® SK W Full Bond waterproofing membrane were applied to a structure made up of 4,000 steel girders to create the unique design – which was crowned The Netherlands' "Roof of the Year" in 2015.

Architecture firm: UNStudio



Diversity in design.

The creation of additional, affordable housing is a pressing issue particularly in the urban areas which experience a large influx of people.

In addition to the social, demographic and energetic aspects, the question of new builds' design requirements plays a key role, especially for architects. EPDM waterproofing systems from CCM Europe enable the combination of budget frames and aesthetics. The flexible material reduces both installation complexity and follow up costs, and at the same time opens up new design possibilities, which can impact on identity creation for all districts.

PONTSTEIGER, AMSTERDAM, THE NETHERLANDS

Amsterdam will have a new landmark in 2017. The Pontsteiger residential building, which initially looks like a huge gate from afar, is being constructed near the timber harbour. If you approach the ensemble, it takes the form of a chair that appears to float above the ferry terminal in a light and airy manner. HERTALAN® products were used here several times over. Indeed, the transitions between the prefabricated concrete walls were sealed with HERTALAN® EPDM strips, while the windows embedded in the walls were reliably waterproofed with prefabricated HERTALAN® 3D sleeves. HERTALAN® was also used on the balconies.

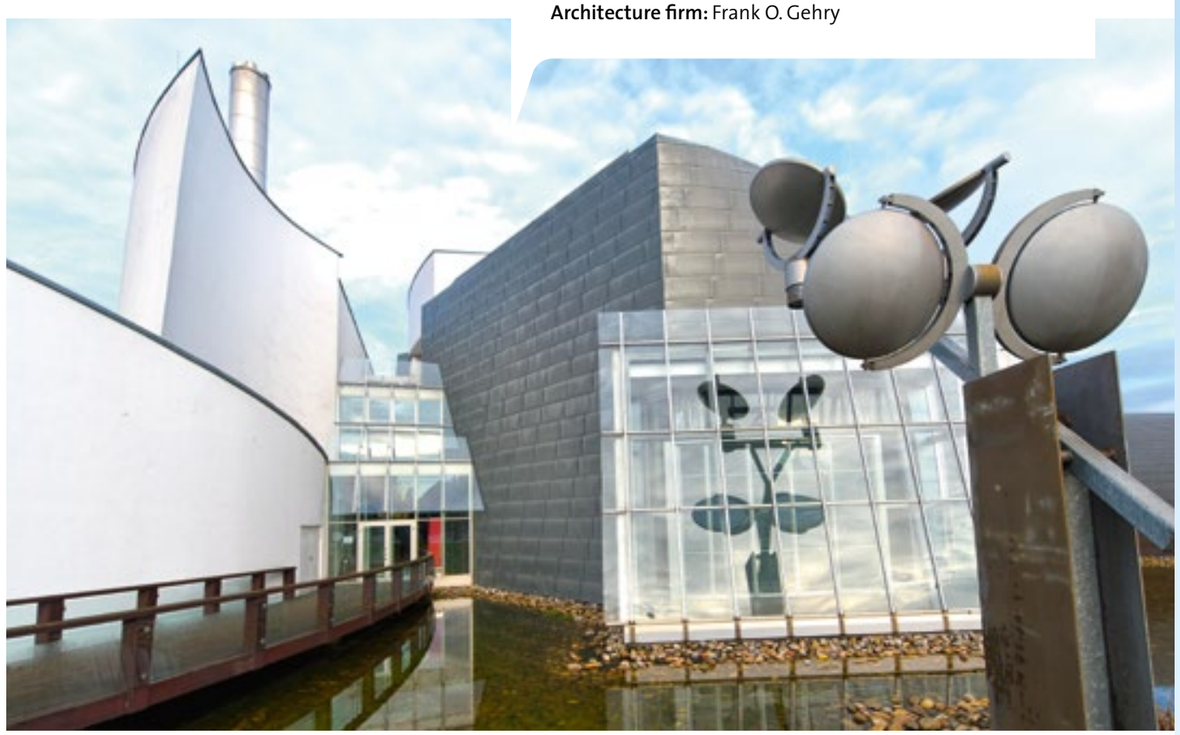
Architecture firm: arons en gelauff architecten

FLEXWONEN, GRONINGEN, THE NETHERLANDS

In the context of a large scale urban redevelopment operation, the architecture firm MASSA designed the concept for a flexible single family home development for the "Corpus den Hoorn" district of Groningen. The client opted for our sustainable EPDM roof membranes from the HERTALAN® range to waterproof the roof surfaces and wide roof edges with white gravel covering central areas.

Architecture firm: MASSA bureau voor architectuur

A fresh start!



Unlike pure bitumen products that have to be replaced around three times during a building lifetime of roughly 80 years, EPDM waterproofing systems have a certified life expectancy of more than 50 years.

It can therefore be useful to switch to the long-lasting material straight away during roof renovation operations. The flat roof waterproofing solutions from CCM Europe are bitumen compatible. Indeed, thanks to its special membrane structure, they are completely bitumen compatible and are therefore suitable for the refurbishment of conventional roofs too.

ENERGY – FORUM – INNOVATION, BAD OEYNHAUSEN, GERMANY

After around 20 years, the architectural highlight had become outdated. The building designed by Frank O. Gehry and its striking roof landscape had to be repaired. During the refurbishment process, the bitumen vapour barriers were first of all replaced by ALUTRIX® 600 vapour barrier membranes. Now, RESITRIX® CL roof membranes protect the ambitiously curved roof surfaces from the East Westphalian elements.

Architecture firm: Frank O. Gehry

HOUSE OF THE FUTURE, BOTTROP, GERMANY

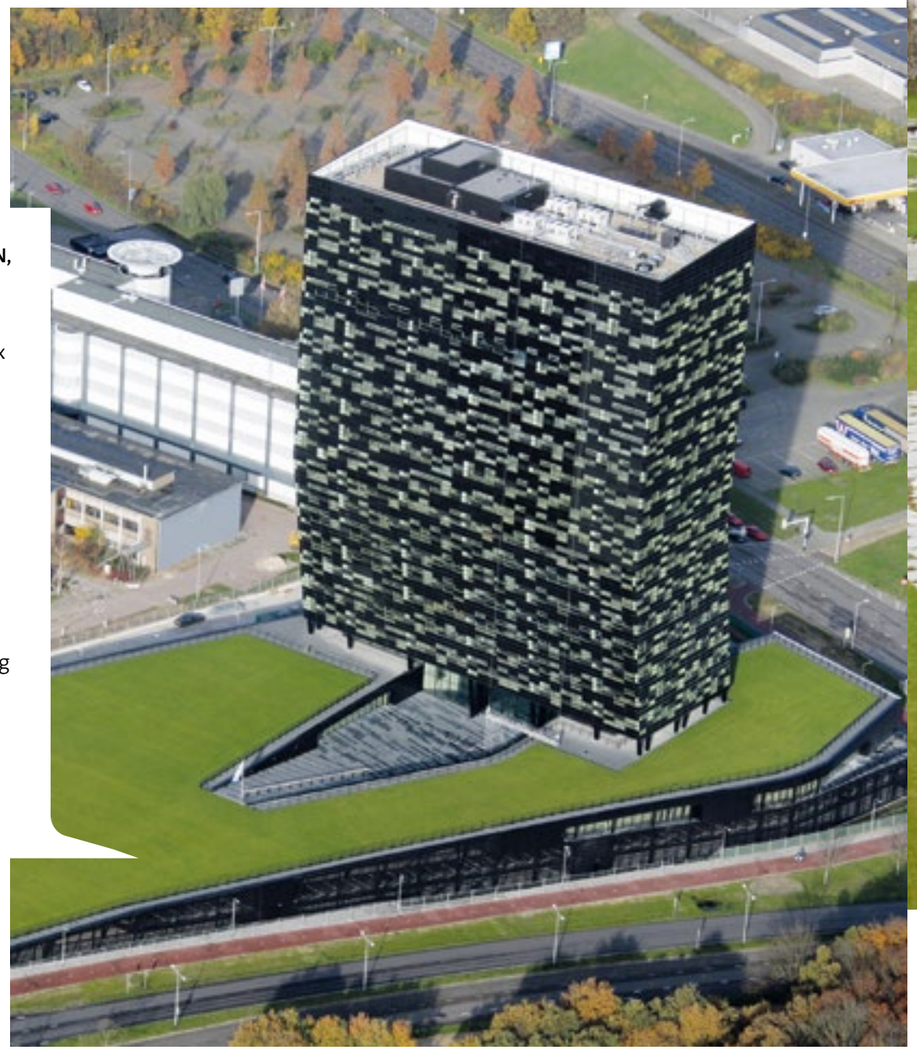
To turn the building, which dates back to the 1960s, into an energy efficient building, the 180 m² flat roof had to be completely re insulated and waterproofed. Because more and more roof penetrations were added, deviating from the original plan, the self-adhesive EPDM membrane RESITRIX® SK Partial Bond was chosen as the top layer for the flat roof waterproofing operation.

Architecture firm:
Architect Anna Vering

Water tight from the ground up.

It's not just on the roof and the façade that EPDM products can prove their strengths. The waterproofing products from CCM Europe are used in all sub-areas of building waterproofing – on drivable surfaces, components in contact with the ground, interior spaces or containers, for example.

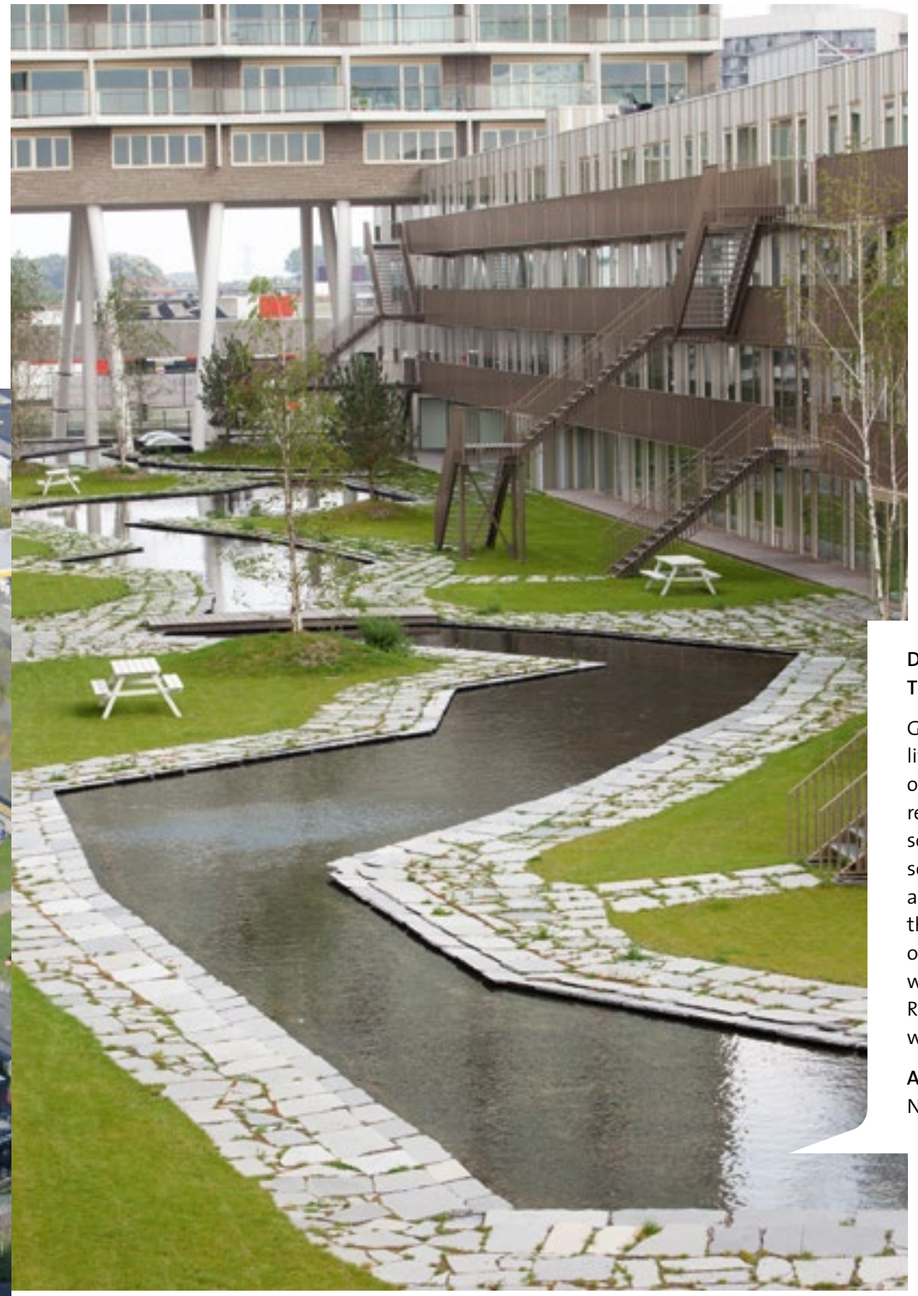
Thanks to EPDM's permanently elastic properties, substrate cracks can be easily bridged without causing any damage. EPDM membranes from CCM Europe can be applied easily and safely without any naked flames. They are applied by means of a full surface, infiltration-proof substrate connection either by means of a self-adhesive or hot bonding process or on vertical components using a permanently non slip self-adhesive.



FIFTYTWODEGREES, NIJMEGEN, THE NETHERLANDS

The 52nd degree of latitude, near which the office complex was built, gave its name to the "FiftyTwoDegrees Business Innovation Centre" in Nijmegen. The building, which stands at 86 metres tall and has a distinctive kink to the rear, sits on a wedge shaped base where the underground car park is located. 5,000 m² of the root-resistant EPDM waterproofing membrane RESITRIX® SK W Full Bond were applied when planting greenery on the underground car park's roof.

Architecture firm: Mecanoo



DE KAMELEON, AMSTERDAM, THE NETHERLANDS

Greenery makes a place more liveable: The refurbishment of the "De Kameleon" residential facility in the south east of Amsterdam is setting a standard for using architecture to enhance the urban space. 11,000 m² of the root-resistant EPDM waterproofing membrane RESITRIX® SK W Full Bond were applied here.

Architecture firm:
NL Architects

Built close to water.

Be it a reed-covered mini ecosystem or an alternative to the blue, shimmering swimming pool – the water element can be put to an excellent use to design gardens in a natural way.

By adding swimming or garden ponds, water fountains, idyllic streams or wetland ditches, you create your new favourite places that invite you to stay a while and relax. EPDM pond lining is perfect for professional waterproofing of your idyllic recreation areas in your own garden thanks to its durability and flexibility.

BIOLOGICAL POND, OENE, THE NETHERLANDS

A body of water in record time: The landscaping team on site needed just 45 minutes to line the pond with 600 m² of ECOLAN® lining. The two custom made EPDM sheets were easily and safely connected to one another for this purpose using ECOLAN® adhesive and sealant.

Architecture firm: Daniel Vos

INDUSTRIAL POND, AMERSFOORT, THE NETHERLANDS

ECOLAN® pond lining, which is 1.5 mm thick, was used for this 2,300 m² project. In the factory, the hot bonding process produced bespoke large sheet from seven EPDM membranes so that there would be no wasting of precious time on the construction site later on.

Architecture firm: Garden Fix

Room for visionaries.

We believe that providing waterproof solutions also means being receptive to new ideas. As an innovative, versatile material, EPDM surprises time and time again with new applications.

Everywhere that traditional boundaries become blurred and new living, family and working models are created, we support architects and planners with their visions of modern life– and ensure that they can be easily implemented on a construction site. The material EPDM demonstrates in practical use that it is capable of far more than providing pragmatic protection from the wind and weather. With its flexibility, time and again it inspires individuals to create pioneering architecture and makes the real art of building possible.

HOUSE OF ENERGY, KAUFBEUREN, GERMANY

This residential and commercial building is the first building in the world to satisfy the criteria for the international "Premium Passive House" certificate. With heating requirements of just 8 kWh/(m²a), its energy efficiency is unique. At the same time, renewable energy is generated with a 250 m² photovoltaic system. Around 420 m² of RESITRIX® MB were used on the roof, while approximately 85 m² of RESITRIX® SK W Full Bond were applied on the attic.

Architecture firm: bg architektur, Barbara Glantschnig

FLOATING HOMES, HAMBURG, GERMANY

Modern floating homes are an alternative residential option. Here, exclusive design and contemporary building materials come to the fore rather than the romanticism of life on water. The house boat's roof remains sealed – thanks to the HERTALAN® sheets bonded to the wooden framework. HERTALAN® was used for waterproofing purposes on the the pontoon and the façade too.

In the elliptical house boat below, RESITRIX® was bonded to the wooden framework and then it was topped with a sheet metal roof from the outside. The pontoon was also waterproofed with RESITRIX®.

Architecture firm:
Daniel Wickersheim

INVESTCORP BUILDING FOR OXFORD UNIVERSITY'S MIDDLE EAST CENTRE, OXFORD, GREAT BRITAIN

The new Middle East Centre of St. Antony's College stretches over the awe-inspiring Oxford University's perpetually Victorian style campus as a shimmering steel tunnel that almost appears to float. ALUTRIX® 600 vapour barrier membranes and HERTALAN® EASY COVER 1.3 mm waterproofing membranes, which were precisely worked around the teardrop shaped skylights, can be found beneath the metal cladding of the elegant curved structure.

Architecture firm:
Zaha Hadid Architects

PAULUSKERK IN ROTTERDAM, THE NETHERLANDS

Not far from the Central Station is the most spectacular church building in the world the futuristic Pauluskerk designed by Dutch architect Will Alsop. Triangular windows let light flood into the interior of the unorthodox, bronze coloured building. Special, bespoke HERTALAN® 3D sleeves were made for this project. To make the window frames windproof and waterproof, the sleeves were installed during the frame production process and delivered to the construction site in a prefabricated state.

Architecture firm: Will Alsop

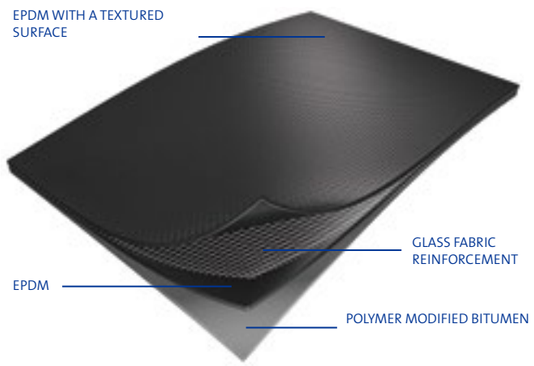
RESITRIX® the all-rounder for every roof.

RESITRIX® is the only waterproofing membrane available in an unprecedented combination of the synthetic rubber EPDM and the high quality, polymer modified bitumen that combines the advantages of both materials. It's a successful combination, because thanks to the polymer bitumen layer at the bottom, the material can be applied to almost all substrates and can be quickly, easily and reliably welded using a hot-air gun without any need for a naked flame. The impermeability of the seams can be checked immediately by means of a simple visual inspection. The Plastics Centre (SKZ) has acknowledged that RESITRIX® has a service life of more than 50 years.

In addition to EPDM's aforementioned unique material properties such as durability, flexibility and simple application without any naked flames, RESITRIX® is characterised by the following advantages.

ADVANTAGES OF RESITRIX® AT A GLANCE
CERTIFIED SERVICE LIFE OF MORE THAN 50 YEARS, EVEN FOR SEAM JOINTS (SKZ STUDY)
CAN BE WELDED WITH HOT AIR DOWN TO -10°C
100% WATERTIGHT WELDED SEAM – SIMPLE VISUAL INSPECTION
THE ENTIRE UNDERSIDE OF THE ROOF WATERPROOFING MEMBRANE CAN BE WELDED
PERMANENTLY ELASTIC WITHOUT PLASTICISERS
FLEXIBLE AT LOW TEMPERATURES OF DOWN TO -40°C
NO ADDITIONAL SURFACE PROTECTION; RESISTANT TO OZONE, UV AND INFRARED ADIATION
COMPATIBLE WITH BITUMEN
NON-SLIP, EVEN WHEN WET
PRACTICALLY FREE FROM SHRINKAGE THROUGHOUT ITS ENTIRE SERVICE LIFE
SUSTAINABLE (EPD CERTIFIED AND DGNB COMPLIANT)

RESITRIX®



HERTALAN® tailor-made solutions for your building.

HERTALAN® EPDM sheet systems have stood for tried and tested quality in the waterproofing of flat roofs for 50 years. The versatile EPDM sheets are made with the hot bonding process, which is a particularly safe hot vulcanisation process for connecting EPDM membranes. The decisive advantage in this regard is that, thanks to the seam joints prefabricated in the factory, only around 5% of the manual connections have to be made on the construction site. Just like a tailor made suit, the roof waterproofing system is delivered to the construction site as a perfect fit solution in a single piece. Quick, easy and reliable waterproofing in a single work step is a major advantage, especially in inclement weather.

In addition to EPDM's aforementioned unique material properties such as durability, flexibility and simple application without any naked flames, HERTALAN® is characterised by the following advantages.

ADVANTAGES OF HERTALAN® AT A GLANCE
CERTIFIED SERVICE LIFE OF MORE THAN 50 YEARS (SKZ STUDY)
FLEXIBLE AT LOW TEMPERATURES OF DOWN TO -45°C
PREFABRICATED TARPS
SWIFT APPLICATION, SO MAXIMUM SAFETY DURING THE CONSTRUCTION PHASE
BITUMEN RESISTANT, SO NO SEPARATING LAYERS REQUIRED
HOMOGENEOUS MATERIAL WITHOUT ANY DEPOSITS OR LAMINATIONS
NO ADDITIONAL SURFACE PROTECTION; RESISTANT TO OZONE, UV AND INFRARED RADIATION
HERTALAN® EPDM SHEET PRODUCTION IN THE HOT BONDING PROCESS (VULCANISED)
50 YEARS OF EXPERIENCE
EFFICIENT AND RELIABLE MECHANICAL FASTENING WITH THE UNIQUE RHINOBOND FIXING SYSTEM
SUSTAINABILITY (EPD AND DUBOKEUR CERTIFICATION)

HERTALAN®

ALUTRIX® – effective cold applied, self-adhesive vapour barrier membranes.

ALUTRIX® 600 and ALUTRIX® FR are self-adhesive, quick-application, vapour tight and mechanically resistant vapour barrier layers. They consist of a reinforced aluminium composite with a self-adhesive base and removable separating film. The fact that the vapour barriers can be walked on and stepped on makes them real professionals for the special challenges encountered on steel profile membranes. They can be adhered to timber materials.

ALUTRIX® vapour barrier membranes can be easily used on structures that are exposed to high stresses caused by humidity such as breweries or swimming pools. In addition to the vapour barrier function, at the same time it forms an airtight layer in line with the Energy Saving Regulations. ALUTRIX® FR also meets the requirements for vapour barrier membranes with a low / reduced fire load and is approved according to DIN 18234.

ADVANTAGES OF ALUTRIX® AT A GLANCE
COLD-APPLIED AND SELF-ADHESIVE
IMPERVIOUS TO VAPOUR
CAN BE WALKED ON AND STEPPED ON DUE TO ABOVE AVERAGE HIGH STRENGTH
FORMATION OF AN AIRTIGHT LAYER ACCORDING TO THE ENERGY SAVING REGULATIONS
RESISTANT TO A RANGE OF CHEMICALS
ALUTRIX® 600 AND ALUTRIX® FR CAN BE BONDED FROM +5°C
HAS A REDUCED FIRE LOAD AS PER DIN 18234 AND THE INDUSTRIAL BUILDING DIRECTIVE: ALUTRIX® FR HAS A HEATING VALUE OF ≤10,500 KJ/M² AND A FUEL VALUE OF ≤11,600 KJ/M²
ALUTRIX® FR MEETS THE FM STANDARD CLASS NO. 4470

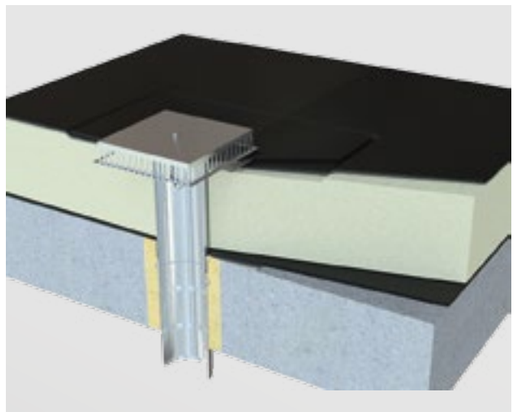
ALUTRIX®

Stainless steel accessories – just as durable as our on line membranes.

Given that heavy rain is becoming an increasingly frequent occurrence, drainage elements are counted among the most important system supplements. The stainless steel accessories from CCM Europe have the right element ready for every drainage situation – whether for the main drainage or emergency drainage, and whether for new builds or refurbishment operations.

Our stainless steel accessories comprise versatile corrosion- and acid-resistant stainless steel elements to which EPDM sleeves made from RESITRIX® or HERTALAN® can be connected in the factory. That way, the waterproof connection to the surface waterproofing solution is established in a quick, easy and reliable manner, as all the components are optimally coordinated to one another. The one or two-part drains can be arranged within the roof surface with either vertical or angled outlets or in the roof edge area to guide water away through the façade. No special tools are required for this.

THE ADVANTAGES OF OUR STAINLESS STEEL ACCESSORIES AT A GLANCE
SAFE INSTALLATION WITHOUT ANY RISK OF FIRE DUE TO WELDING WITH HOT AIR
SIMPLE MOUNTING WITHOUT SPECIAL TOOLS
SERVICE LIFE THAT SPANS DECADES
RESISTANT TO ACIDS AND THE COLD, PLUS EXTREMELY HEAT-RESISTANT
SAFE COMPLETE SOLUTION
TÜV-TESTED
FIRE PROTECTION IN ACCORDANCE WITH DIN 18234



ECOLAN® eco-friendly, flexible EPDM pond lining.

Prefabricated ECOLAN® EPDM pond linings are a professional solution for a permanent waterproofing of swimming pool or garden ponds, water fountains or idyllic streams thanks to their durability and flexibility. ECOLAN® pond lining is made from environmentally friendly EPDM synthetic rubber. The material does not contain any toxic substances, heavy metals or aggressive plasticisers and is resistant to leaching.

Since EPDM is highly flexible, almost all garden pond variants desirable can be used without any problems. The material is practically indestructible and even enables easy implementation and waterproof laying of PVC pipes and wooden stakes. The ECOLAN® EPDM pond lining can also be delivered prefabricated or shape-welded upon request.

THE ADVANTAGES OF ECOLAN® EPDM POND LINING AT A GLANCE
ELASTIC AND HARD WEARING
QUICK AND EASY APPLICATION AT ALL TEMPERATURES
NATURALLY UV AND OZONE RESISTANT
FLEXIBLE AT LOW TEMPERATURES OF DOWN TO -45°C
RESISTANT TO ROOT PENETRATION
ENVIRONMENTALLY FRIENDLY AND DURABLE
EXPECTED SERVICE LIFE OF MORE THAN 30 YEARS

ECOLAN®

HARDCAST® diverse waterproofing and airtight solutions.

HARDCAST® industrial tapes, adhesives, putty and fillers offer a professional solution for almost any waterproofing problem – from the waterproofing of the cable connections and protection against corrosion in pipelines, to the waterproofing of window frames.

The intelligent waterproofing products not only provide buildings with protection against water, but also make them airtight and impermeable to vapour for greater energy efficiency and living comfort. HARDCAST® products come in more than 1,600 different variants as butyl, bitumen and textile tapes. All the products are exclusively developed and produced internally at CCM Europe's premises. A great deal of importance is attached to flexibility in this regard: We are more than happy to adjust the width, length and thickness of our adhesive tapes to individual customer requirements so as to create tailor-made solutions.

HARDCAST® PRODUCT RANGE
BUTYL TAPES AND BUTYL STRIPS
BITUMEN TAPES
FABRIC TAPES
PRIMERS
SEALANTS
ALUMINIUM TAPES
CUSTOMISED TAPES

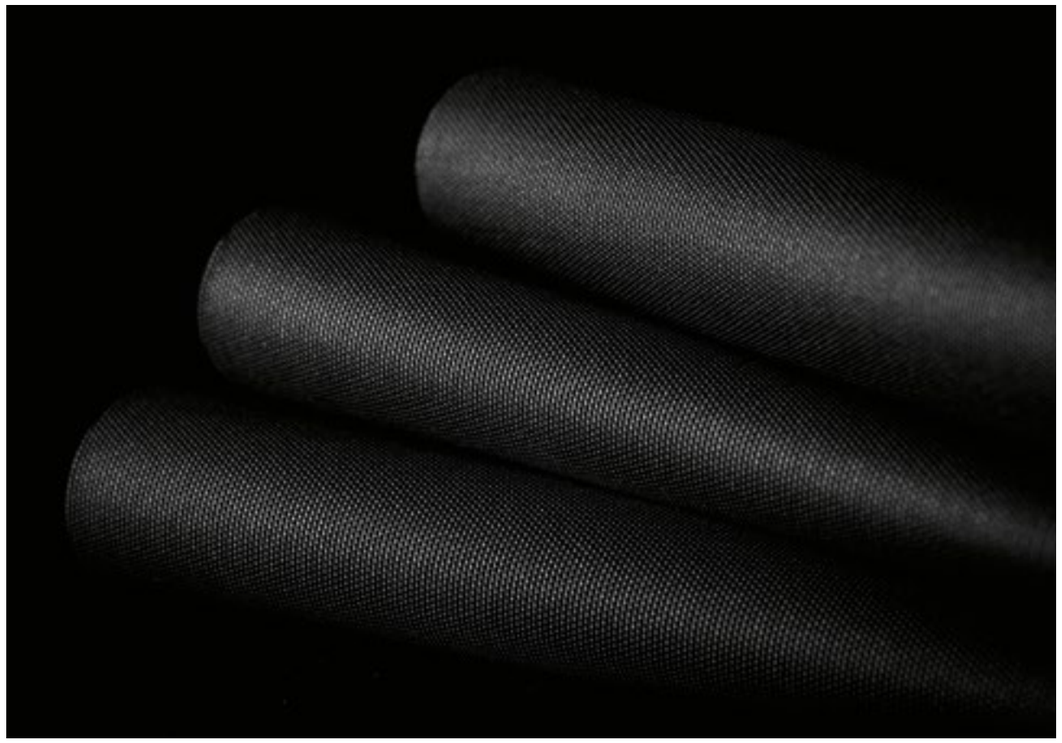
HARDCAST®

In addition to individual consulting appointments on site, we offer you the following services.

SUPPORT IN ALL SERVICE PHASES
CREATION OF THE SPECIFICATIONS
ROOF INSPECTIONS
ROOF OPENINGS IN THE EVENT OF REFURBISHMENT OPERATIONS
CREATION OF REFURBISHMENT CONCEPTS (FLAT ROOF CHECK)
TECHNICAL ADVICE FOR AN INDIVIDUAL ROOF STRUCTURE (GREEN ROOF, MECHANICAL FASTENING OR BONDED ROOF STRUCTURES)
U-VALUE CALCULATIONS
CAD DRAWINGS FOR INDIVIDUAL CONNECTION AREAS OR ROOF STRUCTURES
ADVANCED TEST RUNS AND WIND LOAD CALCULATIONS IN THE IN-HOUSE TESTING LABORATORY
DRAINAGE CALCULATIONS
WIND SUCTION CALCULATIONS

BIM – VIRTUAL DESIGNS-REAL BUILDINGS

Consistent data standards, transparent planning processes, keeping construction costs within budget and adhering to the construction time – while working with virtual, digital building information is already standard worldwide, the implementation of construction projects using building information modelling (BIM) is developing slightly more slowly. At CCM Europe, we want to be prepared for the comprehensive use of BIM and have therefore provided key detailed drawings with BIM-relevant data on our website. As an architecture or planning firm, you can therefore use the detailed drawings with all the important information in the field of roof waterproofing too.



Exploiting the material's potential.

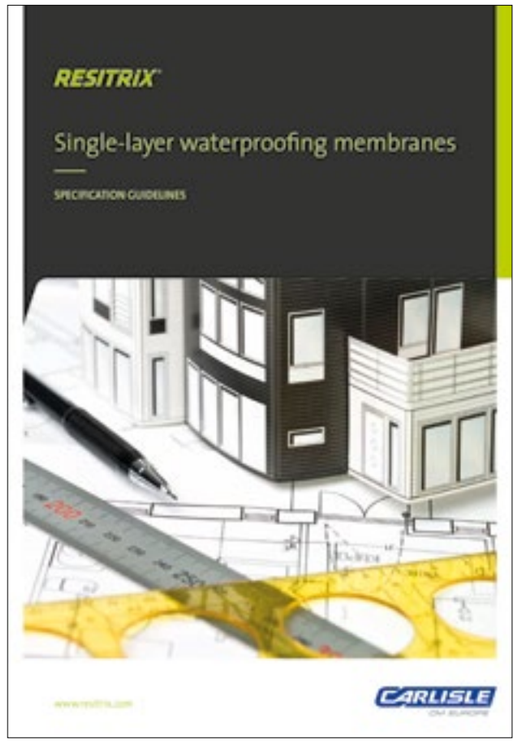
At CCM Europe, we see ourselves as solution providers first and manufacturers second. In addition to outstanding EPDM products, we therefore offer you an extensive customer service that helps you successfully implement your project from the very outset.

We would like you to really exploit the potential of the versatile material EPDM. Our technical team are on hand to help you in any way they can – from creating the specifications to inspecting the roof.

Many construction projects are highly complex – as it is often impossible to deal with the smallest details of every maintenance group. So you are more than welcome to contact our experienced technical team with your questions.

Furthermore, to assist you with your planning and preparatory work for roof waterproofing solutions we have **Product Specification Guidelines for RESITRIX® and HERTALAN®. These guidelines are available to download via our website (www.ccm-europe.com) or contact our sales team and we will be happy to send you a printed copy.**

In these guidelines all the key roof structures and detail designs are described both in text form and by means of pictures and illustrations.



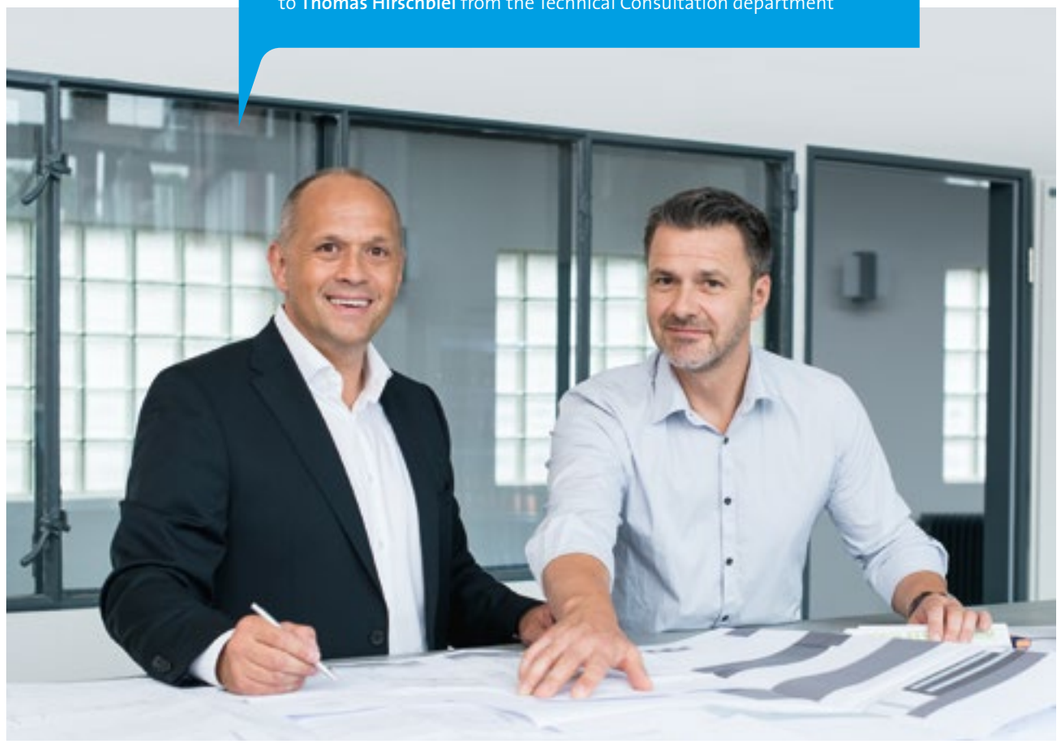
From design to installation.

How creative can a flat roof and a façade really be? In addition to basic and advanced courses on materials and application, the CARLISLE® ACADEMY offers professional seminars and CPDs that are especially tailored to architects and planners.

Our technical and area sales teams have expertise and experience to offer practical commercial solution for your projects. CARLISLE® ACADEMY regularly offers training courses that are industry accredited. In addition we offer bespoke product training courses at our techno point training centers. Alternatively, we can arrange training on-site upon request.

Creativity and architectural visions need a stable foundation. We are building on this too with our range of training courses especially for architects and planners. The CARLISLE® ACADEMY conveys specialist knowledge from professionals for professionals.

Michael Pietsch, Architect Consultant at CCM Europe, here talking to **Thomas Hirschbiel** from the Technical Consultation department



To ensure that your ideas do not simply remain architectural visions, but rather can be properly implemented on the construction site, the CARLISLE® ACADEMY provides experts and employees from roofing companies with a varied training programme. In the ACADEMY, contractors can practice using our EPDM products until they can use them reliably. In most cases, the practical exercises result in a spontaneous wow factor. The advantages of the quick and easy application process using a hot-air device without any need for a naked flame become clear immediately.

Find out more at:
www.ccm-europe.com

EXCERPT FROM THE CARLISLE® ACADEMY PROGRAMME
THE SECURE FLAT ROOF. HOW DO I PLAN A FLAT ROOF AND WHAT PITFALLS DO I HAVE TO KEEP IN MIND WITH REGARD TO THE DESIGN?
THE RIGHT ROOF DRAINAGE
WIND SUCTION: AN UNDERESTIMATED PROBLEM
STRUCTURAL REVIEW OF ROOF STRUCTURES
ECONOMIC EFFICIENCY OF ROOF REFURBISHMENT MEASURES
FIRE PROTECTION IN THE ROOF AREA
AIRTIGHT CONSTRUCTION

Regional roots, global network.

"Made in Europe" quality at home on the roofs of the world. HERTALAN® is one of the innovative products included under the strong umbrella brand of CARLISLE® CM Europe and stands for decades of expertise in EPDM waterproofing solutions.

The CARLISLE® CM Europe Group combines European rubber producers' decades of experience under a single roof. It is part of the listed US corporation CARLISLE® Companies Incorporated and can look back on a long-standing tradition.

As established specialists for high-tech elastomer products for flat roof, façade and building waterproofing, we are looking towards the future at the same time. With our 475 members of staff, every day we devote all our energies to inspiring our customers – with the best products, the best advice and the best training.

We want to convey knowledge to our customers that they can use to professionally and thus successfully turn their projects into a reality. After all, only a manufacturer knows their product today and the potential applications of tomorrow.

We have provided contractors with intensive training for years to achieve maximum application quality. With our CARLISLE® ACADEMY, we have significantly expanded our range of training courses and can offer customised training sessions to application engineers, dealers, architects and planners. Success begins in the CARLISLE® ACADEMY.

EUROPE

1 | **Hamburg | Germany**
(European headquarters and production)

2 | **Waltershausen | Germany**
(Production)

3 | **Kaufbeuren | Germany**
(CARLISLE® Services)

4 | **Weesp | The Netherlands**
(Production)

5 | **Kampen | The Netherlands**
(Production and administration)

6 | **Mansfield | Great Britain**
(Production and administration)

7 | **Belper | Great Britain**
(Production and administration)

8 | **Baia Mare | Romania**
(Production)

AMERICA

9 | **Scottsdale | USA**
(Headquarters of CARLISLE® Companies Inc.)

10 | **Carlisle | USA**
(CARLISLE® Construction Materials Division)

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