

Waterproofing Solutions



 **BASF**

The Chemical Company

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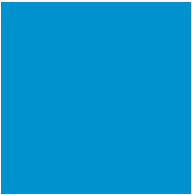
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Protecting Your Environment



Whatever the nature of the structure, protection against the elements is key to retaining its integrity. Climate, movement factors and the effects of aggressive atmospheric chemicals and salts make surfaces vulnerable to deterioration. Utilising engineering waterproofing systems to prevent water ingress optimises structural performance to meet these environmental demands.

Selecting the right system is about more than achieving durability. You need a high-quality, flexible solution that will reduce whole-life costs and which can be installed with minimal downtime.

The Construction Chemicals Division of the BASF Group is the world's largest provider of construction chemicals products, systems and services for new construction, repair and refurbishment. We are committed to working in partnership with you, providing a single source of expertise, and our vast product range allows us to add value through tailor-made solutions.

From roofs, parking decks and bridges to stands and terraces in sports stadiums... from cut and cover tunnelling and other below-ground structures to secondary containment and water structures. Whatever your needs, BASF Construction Chemicals has the experience and technical know-how to make the most of your structure.

CONIDECK®
CONIROOF®
CONIBRIDGE®





Bridge Solutions to Span the Years

Bridge decks are constantly under stress as water, chlorides, acid rain, de-icing salts and freeze-thaw cycles act on them. Seasonal and day cycle extremes of temperature, the impact



of traffic and vibration place decks under further stress. As steel reinforcing bars corrode and expand, concrete can crack and deteriorate. The disruption caused by resultant repair work impacts on traffic and safety and can be costly for commercial and private users.

Protection against the natural elements is vital for bridge decks, however, the durability of traditional methods of waterproofing such as bitumen sheet has often proved to be inadequate. At BASF Construction Chemicals, we recognise the need for lasting waterproofing solutions that contribute to managing the whole-life costs of a structure, minimising the need for maintenance and achieving extended structure life.

BASF's CONIBRIDGE advanced polyurethane waterproofing systems for bridge decks prevent the ingress of water and de-icing salts into the concrete deck by means of a spray applied, tough and seamless waterproofing membrane which is fully bonded to the substrate below and to the asphalt road surface above.

The seamless BASF systems can be easily applied to vertical surfaces and structural components, allowing ease of detailing for faster application, reducing labour costs. The capability to bridge cracks is a further advantage of our waterproofing membranes, and in situations where extreme crack bridging is required our systems approach means that we have the materials and expertise to provide the right specification.

Our rapid curing elastomeric membranes are able to take foot traffic within a few minutes and rubber tyred construction vehicles after approximately four hours. The fast curing time prevents further water intrusion and allows installation in marginal weather conditions.

BASF bridge deck waterproofing systems are based on years of continuous development and testing. In use since 1985, our systems have a proven track record as advanced engineered solutions to bridge waterproofing problems.



Performance to Raise the Roof

A building's roof is one of its most important components, and defective roofing can affect not only a structure's maintenance but its whole-life cost, as well as having far-reaching implications in terms of buildings insurance.

To protect roofs, our versatile CONIROOF waterproofing systems for flat and inclined roofs are suitable for application to all major roof types and designs. Using advanced polyurethane technology to create impervious, monolithic membranes, the highly elastic and seamless systems can be used on exposed roofs, inverted roofs and on podium decks in both new build and refurbishment situations. Our systems also have the benefit of being cold applied thus avoiding the odour and fire risk of hot works.

The spray applied BASF roof coating membranes can be applied to vertical surfaces without runs thus enabling easy application to complicated details. The hand applied systems are available in a number of tailored rheology grades, again allowing easy application to complicated details. Unlike sheet systems, our systems are monolithic with no weak spots caused by laps, welds or seams.

The high performance spray applied membranes are applied using custom designed advanced spray equipment thus ensuring a consistently high quality membrane production. Application is fast and up to 1000 m² can be applied in a single 8 hour shift.

Green roofs can also be waterproofed with BASF's waterproofing systems, making extensive and intensive landscaping possible as the membrane has built-in root resistance to DIN 4062. This avoids the need for separate root barriers, cutting both cost and time.

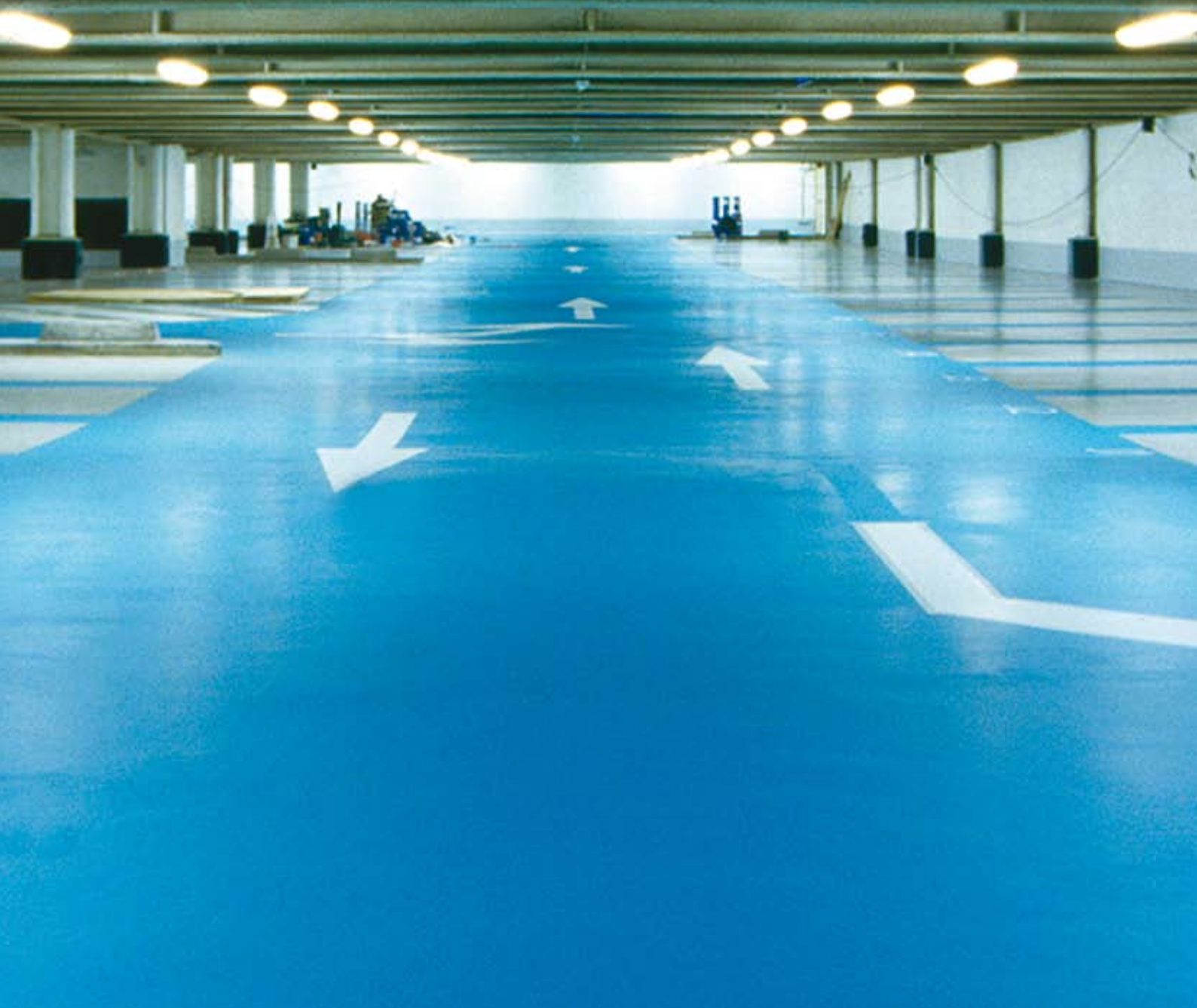
No other system can match the physical properties, versatility, performance and speed of installation of BASF's waterproofing membrane for roofs. Our waterproofing systems are available in a wide range of colours for aesthetic appeal and are approved by the BBA and EOTA.



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Dealing with Decks for Winning Results



Parking structures are subject to a unique set of conditions and have to withstand demanding environmental conditions and intensive traffic movements. If left exposed to water, salts, oils, chemicals and exhaust gases, unprotected deck surfaces will soon show signs of wear and be prone to deterioration due to carbonation and the ingress of chloride ions. Surface salt deposits, from de-icing salts, vehicle spray or a saline coastal atmosphere, together with humidity and rain add up to a corrosive environment, the effects of which will be worsened if cracks already exist in concrete decks.

The top decks of car parks are the most exposed to harsh weather conditions such as standing water, direct sunlight, and dramatic temperature changes, and therefore need a higher level of protection than enclosed intermediate and lower decks but which are still susceptible to aggressive de-icing salts. Load and stress is another factor to consider, as car parks are designed to provide maximum parking space with the minimum number of columns, which increases the susceptibility of the decks to flexing and movement. The effects of heavy and unbalanced live loads constantly being applied and

relieved contributes to a likelihood of dynamic cracking. Clearly, protecting car park decks is essential to prolong the lifespan of the structure. BASF Construction Chemicals specialises in supplying crack-bridging, wear-and-tear and weather-resistant deck coatings for multi-storey and underground car parks.

The BASF systems use innovative primers to give superior performance in terms of bond strength, completely seal the substrate surface and provide a uniform surface for the membrane. Different types of systems are available, making it possible to select the right product for every area of the car park, from top decks to lower floors and ramp areas, as well as for every climatic condition. To differentiate between parking bay, traffic lanes and pedestrian areas, our systems are available in a variety of colours.

CONIDECK's speed of cure not only maintains protection but results in minimum downtime of parking areas on refurbishment projects. BASF systems are installed by specialist contractors with the back-up of skilled BASF personnel who can assist in drawing up the right specification for every application.



Find a Flexible Solution

Waterproofing systems from BASF Construction Chemicals have a multitude of general engineering applications. In sports stadiums they can be used to protect stands and terraces against erosion and abrasion. For underground constructions, they also provide permanent protection against ground and surface water and harmful substances both liquid and gaseous, and prevent root penetration. From cut and cover tunnelling to secondary containments and water structures, BASF has the answer.

Our versatile elastomeric waterproofing systems offer exceptional toughness and traffic resistance and are completely waterproof. The fast-curing properties of our spray applied polyurethane membranes mean that overhead and vertical applications present no problems.

Many of BASF's systems are crack bridging and – using the appropriate primer – bond successfully to a wide range of substrates. They are complemented by a full range of BASF products for joints and concrete repair, allowing you the convenience of sourcing a full suite of products from one supplier.



Intelligent solutions from BASF Construction Chemicals

Whatever your construction problem, whatever the structure is you are building, BASF Construction Chemicals has an intelligent solution to help you be more successful.

Our market leading brands offer the widest range of proven technologies to help you build a better world.

Emaco® - Concrete Repair Systems

MBrace® - Composite Strengthening Systems

Masterflow® - Precision and Structural Grouts

Masterflex® - Joint Sealants

Masterseal® - Coatings and waterproofing

Concresive® - resin based mortars, adhesives and injection systems

Conica® - Sports Flooring

Conideck® - Hand and spray applied waterproof membrane systems

Coniroof® - PU based roofing systems

Conibridge® - PU based membranes to protect bridge decks

Mastertop® - Decorative and Industrial Flooring Solutions

Ucrete® - Flooring Solutions for Harsh Environments

PCI® - Tile fixing, cement underlays and waterproofing systems

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BASF is the world's leading chemical company: The Chemical Company. Its portfolio ranges from chemicals, plastics, performance products, agricultural products and fine chemicals to crude oil and natural gas. As a reliable partner to virtually all industries, BASF's intelligent system solutions and high-value products help its customers to be more successful. BASF develops new technologies and uses them to open up additional market opportunities. It combines economic success with environmental protection and social responsibility, thus contributing to a better future. BASF has approximately 94,000 employees and posted sales of more than €42.7 billion (approximately \$50.4 billion) in 2005. Further information on BASF is available on the Internet at www.basf.com.


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