

CONIDECK®

It's your Choice!

Specifiers' guide to car park protection



 **BASF**

The Chemical Company

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Car Park Protection



The car park protection division of BASF Construction Chemicals develops and markets a range of car park waterproofing, surfacing, repair and protection systems utilising the latest cementitious, epoxy, polyurethane and composite technologies.

Our competence in terms of both car park refurbishment and new build applications is based on many years experience gained across the world in a variety of climatic and service conditions.

We have specified, manufactured and supplied over 1 million m² of performance waterproofing, surfacing, repair and protection products to an international list of car park owners which include names such as:

- Q-Park, UK
- IKEA, UK
- Sava Centre, UK
- Heathrow Airport, UK
- Mall Corporation, UK
- APCOA, UK
- Vinci, UK
- Queensgate Multi Storey, UK
- Bloomfields Shopping Centre, Dun Laoghaire, Ireland
- Dublin City University, Ireland
- Central Park, Sandymount, Ireland
- The Malls, Armagh, Ireland
- Dundrum Shopping Centre, Dublin, Ireland
- Grand Parade, Cork, Ireland
- University of Louvain La Neuve, Belgium
- Globus Prague, Czech Republic
- Airport Dresden, Germany
- Luzent Technologies, Germany
- Mercedes Benz, Germany
- IKEA, Germany
- Airport Leipzig, Germany
- University of Hong Kong, Hong Kong
- Compravene Centro Commerciale, Italy
- Ar-Raya, Kuwait
- CARREFOUR, Poland
- Pre Bank, Poland
- Construtora do Tamega, Portugal
- Headquarters OAL Lukoil, Russia
- Rank-Xerox, Spain
- Carousel Shopping Centre, Turkey
- Aupark Bratislava, Slovak Republic
- Juan XXIII Car Park, Spain
- Car Park Utoquai, Switzerland
- Westfield Shopping Centre, Australia
- Eastside Carpark, Auckland, New Zealand

With BASF Construction Chemicals you can be confident you have selected the right partner.

Choosing the Correct Solution

Parking structures are constantly exposed to aggressive chemicals and intensive traffic movements, therefore it's essential to protect the surfaces to prolong their lifespan. Specifying the correct solution for the waterproofing and protection of car parks is a complex decision, balancing current and future performance criteria against cost and installation time constraints. A well specified solution reduces whole-life cost and downtime and leads to a brighter, cleaner, safer and more attractive environment in which customers feel personally safe and welcome.

Why choose car park solutions from BASF?

The Construction Chemicals Division of BASF is the world's largest provider of construction chemicals products, systems and services for new construction, repair and refurbishment. We have devised and successfully realised a huge number of diverse solutions around the world, under demanding and widely varying climatic conditions. As well as acquiring

expertise from these projects, we are dedicated to continuous investment in the research and development of new and existing systems.

Our partnering approach covers not only products but also systems and services. This is your guarantee that you are dealing with a partner who wants to know and understand your requirements, and who will take an holistic approach to find a solution tailor-made to your needs.

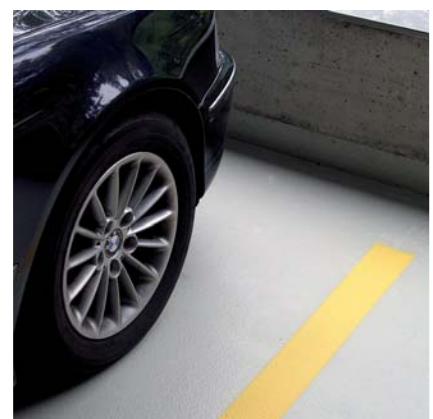
- **CONIDECK**
External and internal deck waterproofing and surfacing systems
- **EMACO/MBRACE/SHOTPATCH/MASTERFLEX**
Concrete repair and composite strengthening systems, high performance expansion joints, cathodic repair systems
- **MASTERSEAL**
Anti carbonation coatings
- **PROTECTOSIL**
Corrosion inhibitors
- **MASTERTOP**
Decorative floor toppings



All materials are manufactured to independently audited ISO 9001:2000 and ISO 14001:1996 quality systems.

Our promise to our customers is a simple one...

We will assist you in selecting the system that best meets your requirements, neither over specifying premium products or over selling the benefits of simpler, more economical solutions. Our goal remains to enter into a long-term partnership with our customers and to ensure you get the most cost effective car park waterproofing and protection system to meet your needs, now and in the future.



Specifying the Right System

Systems for every application

Within the BASF range are waterproofing, repair, protection and structural strengthening systems designed to meet the most exacting physical and chemical resistance needs. Whether it is an exposed top deck, a turning circle, a ramp or an intermediate deck, BASF can provide the solution.

Our range of colours and innovative systems also allows advertising to be incorporated into walkways, entrance lobbies, lift floors etc. which are designed to add value to the structure and provide you with a clean, light, airy and well defined environment for your customers.

Together with our packages for concrete repair and protection, structural strengthening and expansion joints, BASF is the only supplier to be able to offer you a complete range of solutions for both construction and maintenance systems.

What kind of system should you specify? At first glance the choice is wide, but understanding the options and reviewing your particular requirements with the help of an expert from BASF makes the decision process straightforward.

Parking decks, turning circles and ramps

Where the deck is exposed over occupied premises or has widespread cracking, then a fully elastomeric system must be applied. The system must be able to accommodate movement and prevent the ingress of water and gases into the structure. The membrane must be of sufficient thickness, strength and integrity to bridge the cracks.

Ground floor, intermediate and external decks are the most commonly used in the majority of car parks and should not be ignored. These decks may require structural protection and surfacing but even if this is not an issue, they can be transformed into light airy environments for users.

Where down-time is an issue and the structure needs to be returned to use quickly, then a fast track system is required. Our CONIDECK systems can offer solutions to all of the above.

Concrete repair and protection

Existing structures often suffer from contamination due to chlorides, carbonation or impact damage and may require strengthening, repair and protection.

This may take the form of traditional repair methods such as the cutting out of spalled or contaminated concrete, repairing with specialist mortars and

protecting with anticarbonation coatings or corrosion inhibitors.

More serious cases can be protected using Cathodic protection methods. In this field BASF also offers a range of tailor-made solutions.

Movement joints

Failed dynamic movement joints can be another area of concern, allowing de-icing salts to attack the concrete. Also in this field BASF can provide a range of suitable solutions.

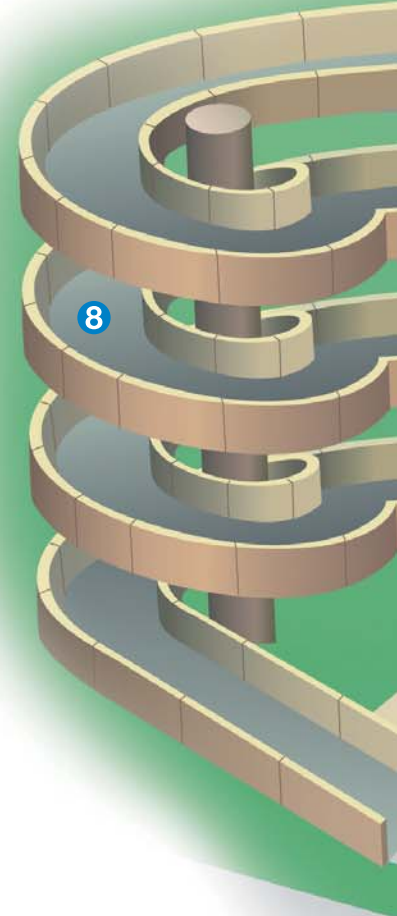
Bespoke systems

Bespoke advertising can also be incorporated through our Mastertop systems.

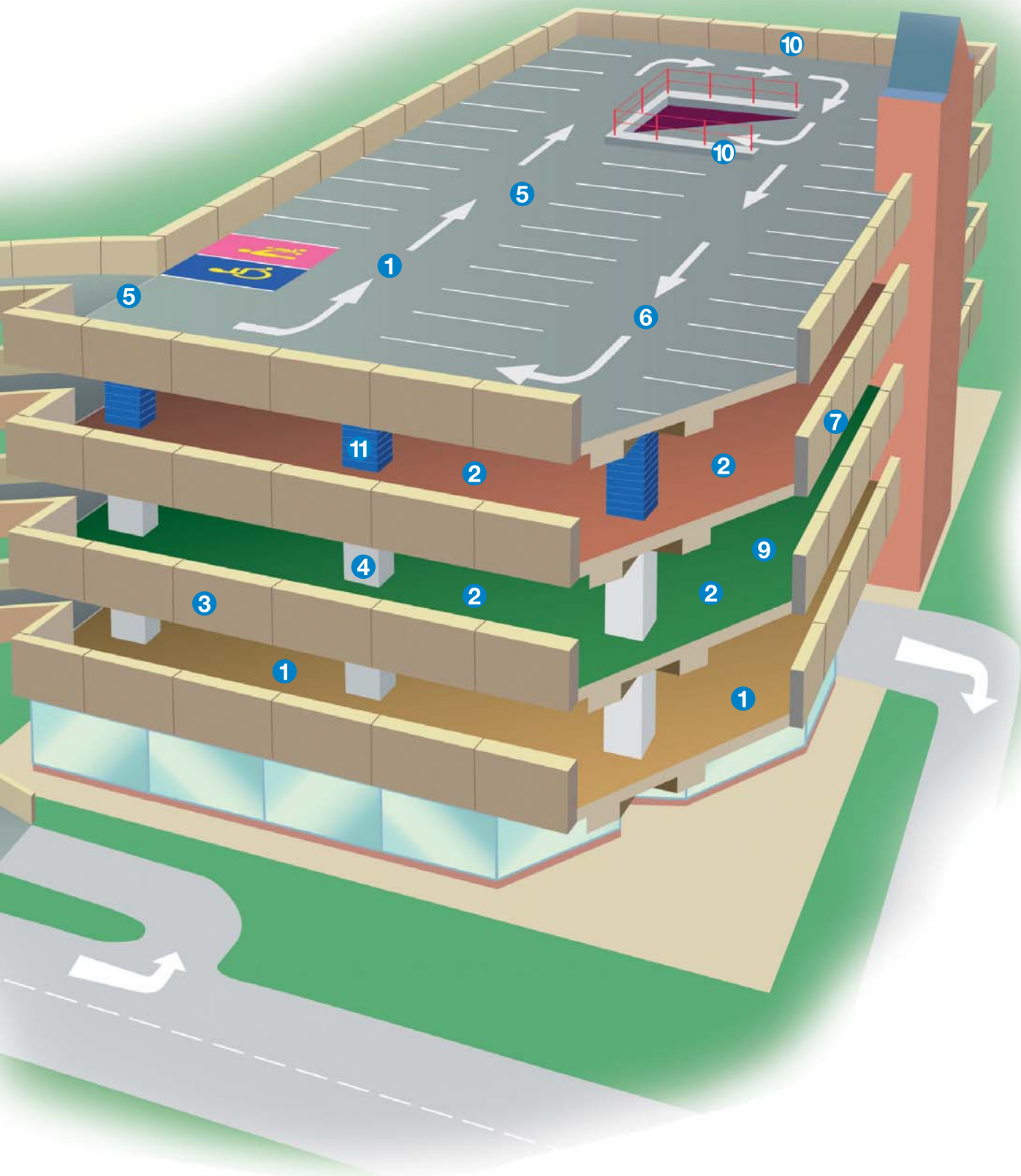
Whatever the nature of your car park, BASF can help you to make the right system choice. It has a fundamental understanding of concrete and the latest polymer technologies as well as an unrivalled track record in the waterproofing, protection and repair of car park structures. The specifier should expect a totally integrated approach to the design and installation of waterproofing and protection systems at every stage of the process – BASF can meet these demands.

Car Park Protection and Repair: A Complete and

1. **CONIDECK** elastomeric waterproof deck membranes: spray or hand applied elastomeric crack bridging membranes to provide guaranteed long term protection even in heavy duty wear areas such as ramps and turning circles.
2. **CONIDECK** intermediate car park deck coatings: solvent free and water dispersed floor coatings, available in a variety of colours.
3. **EMACO Nanocrete & SHOTPATCH** cementitious concrete repair systems: for small or large scale replacement of spalled or damaged concrete.
4. **MASTERSEAL** protective coatings for anti carbonation and antigraffiti: aesthetic improvement and protection to delay the onset of corrosion.
5. **MASTERFLEX** jointing systems for new structures or refurbishment of high movement joints in heavy traffic areas.
6. **EMACO T** traffic repair mortars: for rapid setting repair of potholes, joint arrises, etc. with a minimum down time and loss of revenue.
7. **MASTERFLEX** and **SONOLASTIC** polyurethane and polysulphide elastomeric joint sealants: fuel resistant, trafficable and architectural grades available for expansion joints and repair of live cracks.
8. **EMACO CP** cathodic protection systems: for the only permanent solution to heavily chloride contaminated concrete structures.
9. **MASTERFLEX** and **CONGRESIVE** structural adhesives and resin injection systems: for repair of non-moving cracks.
10. **MASTERFLEX** cementitious & resin grouts: for anchoring barriers, external cladding, etc.
11. **MBRACE** systems for structural strengthening and increasing load bearing capability: carbon, aramid and glass fibre tow sheets, laminates and rods with MBRACE resin systems.



Totally Integrated Solution



CONIDECK System Selector



System (CONIDECK)	2203	2204	2269	2257	2259	2270	2261
Application							
Fast-track, crack bridging, waterproofing of exposed decks and ramps	■						
Fast-track, crack bridging, waterproofing of intermediate decks and ramps over occupied premises	■						
Crack bridging, waterproofing of exposed decks and ramps		■					
Crack bridging, waterproofing of exposed decks			■				
Crack bridging, waterproofing of intermediate decks and ramps over occupied premises		■	■				
Crack bridging, waterproofing of exposed and intermediate decks with limited movement			■				
Limited crack bridging coating of exposed decks and ramps					■		
Fast-track, non-crack bridging coating of exposed and covered decks and ramps				■			
Non-crack bridging coating of covered decks and ramps						■	■
Non-crack bridging coating of bottom deck of underground car parks						■	■

Start at the Top

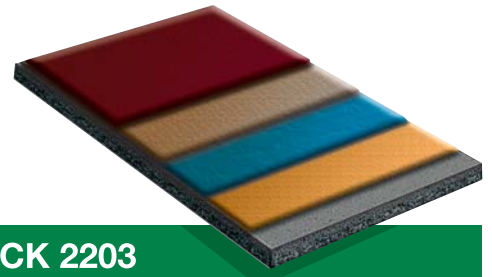
The top deck of a car park is the structure's most vulnerable surface - exposed to the elements as well as oil, acids, salts and UV radiation. To withstand such severe conditions, heavy-duty, UV-stable, elastomeric waterproofing systems are needed. They use a multi-layer build up system to ensure optimum performance in even the harshest environments and are available with a wide range of top coats.



Application of primer and broadcast sand.



Proper substrate preparation is essential.



CONIDECK 2203

A fast-track, crack bridging system for quick application and short down-times. The spray applied, elastomeric waterproofing membrane enables application to vertical surfaces without runs, as well as easy application to complicated details. Separate waterproofing membrane and wear coat. The wear coat is slightly thixotropic for application to ramps without the need for the on-site addition of a thixotrope. The attractive, UV resistant top coat is easy to clean and maintain.

MASTERTOP P 660



A low viscosity, fast curing, solvent free, two component polyurethane primer.

CONIPUR M 810



Fast curing, solvent free, two component, polyurethane wear coats.

CONIPUR WC 880 or WC 881



Fast curing, solvent free, two component, polyurethane wear coats.

CONIPUR TC 481



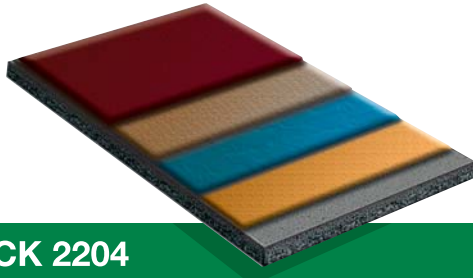
Fast curing, UV resistant, two component, modified polyurea top coats.

Features and benefits

- fast installation
- can be driven on after only a few hours
- separate membrane and wear coat for optimum crack bridging ability
- easy and dependable detailing due to spray application of waterproofing membrane
- monolithic, no laps, welds or seams
- excellent wear resistance
- skid resistant
- UV and weather resistant
- resistant to fuels, battery acid, alkaline cleaners
- attractive appearance
- easy to clean and maintain

Areas of Application

Exposed decks and ramps where fast installation and short down-times together with maximum crack bridging and wear resistance are of prime importance. Also used on intermediate decks where shops, offices, storerooms, etc. lie directly underneath the deck.



CONIDECK 2204

A crack bridging system with spray applied, elastomeric waterproofing membrane enabling application to vertical surfaces without runs, as well as easy application to complicated details. Separate waterproofing membrane and wear coat. Top coats available for both exposed and intermediate decks.

A range of primers available according to type and condition of substrate.

**Primer and
adhesion promoter**
■ According to type and condition of substrate.

CONIPUR M 810
■ A spray applied, fast setting, two component, elastomeric, solvent and filler free, polyurethane waterproofing membrane.

CONIPUR M 867F
■ A solvent free, two component, polyurethane wear coat.

CONIPUR TC 458
(exposed decks)
■ A low solvent, single component, elastomeric, UV and weather resistant, polyurethane top coat.

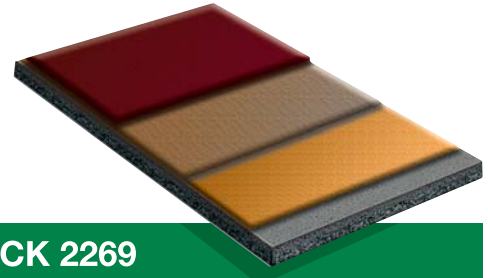
or **CONIPUR
TC 481**
■ Fast curing, UV resistant, two component, modified polyurea coats for both exposed and intermediate decks.

**Features and
benefits**

- separate membrane and wear coat for optimum crack bridging ability
- easy and dependable detailing due to spray application of waterproofing membrane
- monolithic, no laps, welds or seams
- excellent wear resistance
- skid resistant
- UV and weather resistant (with top coat CONIPUR TC 458/TC 480 or TC 481)
- attractive appearance
- easy to clean and maintain

**Areas of
Application**

Exposed parking decks and ramps where maximum crack bridging and wear resistance are of importance. Also used on intermediate decks where shops, offices, storerooms lie directly underneath the deck.



CONIDECK 2269

A crack bridging system with hand applied waterproofing membrane and wear coat. Top coats available for both exposed and intermediate decks. A range of primers available according to type and condition of substrate.

Primer
■ According to type and condition of substrate.

CONIPUR M 865Z
■ A hand applied, two component, solvent free membrane formulated to give the attributes of the spray applied membrane with the convenience of squeegee or roller application. Also available in a thixotropic versions for upstands and details.

CONIPUR TC 458
■ A low solvent, single component, elastomeric, UV and weather resistant, polyurethane top coat.

or **CONIPUR
TC 481**
■ Fast curing, UV resistant, two component, modified polyurea coats for both exposed and intermediate decks.

**Features and
benefits**

- hand applied waterproofing membrane and wear coat for ease of application
- uniquely formulated, hand applied membrane that gives the same mechanical characteristics as the spray applied membrane
- monolithic, no laps, welds or seams
- excellent wear resistance
- skid resistant
- UV and weather resistant (with top coat CONIPUR TC 458/TC 480 or TC 481)
- attractive appearance
- easy to clean and maintain

**Areas of
Application**

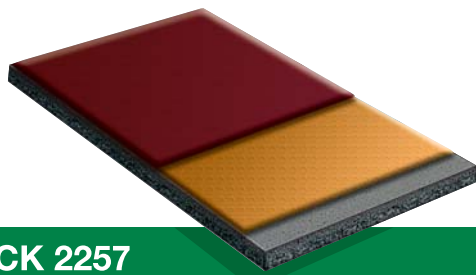
Main use is on small decks where economics of using the spray applied material is compromised or only small areas can be made available or site conditions do not favour the use of a pump.

The Second Line of Defence

Enclosed, intermediate and lower decks and bays are protected from weather conditions to a larger degree and are less susceptible to stress than top decks, although still exposed to aggressive de-icing salts.


Safe and stable – even on bends


Turning circles and ramps are the areas that suffer the highest mechanical stress. A greater aggregate content in such zones increases wear resistance, producing a heavy-duty, skid resistant surface for long-term protection.



CONIDECK 2257

A fast track, non-crack bridging system for quick application and short down times. The attractive, UV resistant top coat is easy to clean and maintain.

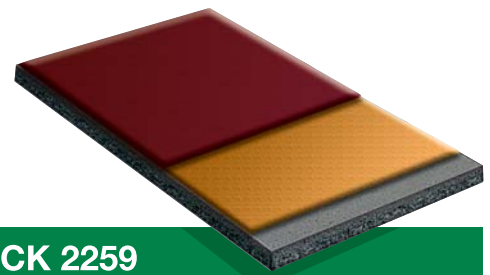
MASTERTOP P 660  A low viscosity, fast curing, solvent free, two component polyurethane primer.

CONIPUR TC 481  Fast curing, UV resistant, two component, modified polyurea coats for both exposed and intermediate decks.

Features and benefits


- fast installation
- can be driven on after only a few hours
- excellent wear resistance
- skid resistant
- UV and weather resistant
- attractive appearance
- easy to clean and maintain


Areas of Application Intermediate and exposed car park decks and ramps where a fast installation and short down times are of vital importance.



CONIDECK 2259

A limited crack bridging, UV and weather resistant system. A range of primers available according to type and condition of substrate.

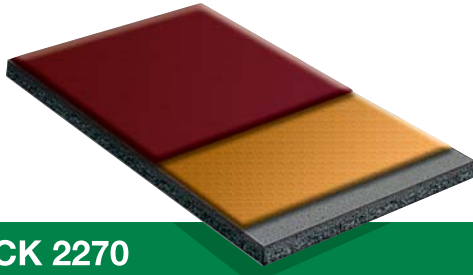
PRIMER  According to type and condition of substrate.

CONIPUR TC 458  A low solvent, single component, elastomeric, UV and weather resistant, polyurethane top coat.

Features and benefits


- simple installation
- excellent wear resistance
- skid resistant
- UV and weather resistant


Areas of Application Intermediate decks and ramps where a limited crack bridging system is required.



CONIDECK 2270

A non-crack bridging system.

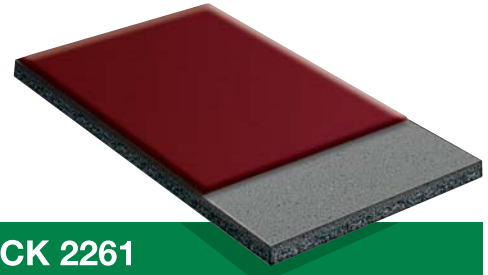
PRIMER  According to type and condition of substrate.

Mastertop 1080  Solvent free, two component, epoxy top coats.

Features and benefits


- simple installation
- excellent wear resistance
- skid resistant
- attractive appearance
- easy to clean and maintain

Areas of Application Intermediate decks and ramps where a non-crack bridging system is required.



CONIDECK 2261

A non-crack bridging system.

MASTERTOP 1110  A water borne, two component epoxy coating.

Features and benefits

- simple installation
- water vapour permeable
- skid resistant

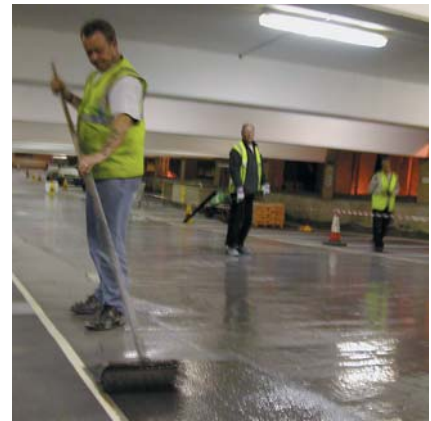
Areas of Application Light to medium duty system. Especially suited for use on bottom levels of underground car parks due to high water vapour permeability. Not suitable for exposed decks.



Application of a hand applied membrane.



Application of the sprayed membrane.



Application of top coat.



Concrete Replacement Systems



Hand-applied concrete repair

Atmospheric pollutants such as carbon dioxide and sulphate dioxide reduce the alkalinity of the cover concrete hence allowing corrosion of the steel reinforcement to start. Left unchecked, this will lead to concrete spalling, which may eventually question the structural integrity of the structure.

BASF's EMACO Nanocrete range of polymer-modified concrete repair products have a proven international track record. Fast-setting and easy to apply, these products are ideal for hand- and spray-applied repairs to concrete beams, panels, floors and other concrete features, and conforms to BS EN 1504.

Formulated with the highest quality polymers, the EMACO Nanocrete range of hand placed mortars provide highly alkaline, impermeable, carbon dioxide and chloride resistant mortars for durable, cost effective repair solutions.

Large scale structural repair

Large volume structural repairs may be required to correct extensive deterioration of concrete structures. These repairs may be necessary for a variety of reasons, but are usually associated with exposure to aggressive environments such as highways and parking structures.

BASF's portfolio of large volume repair products includes free flowing and spray-applied materials from the EMACO and SHOTPATCH ranges.

EMACO and EMACO Nanocrete repair mortars have an unrivalled 30-year track record based upon a unique philosophy of low permeability, sulphate resistant, expansive cements that can be spray applied by the wet process. New systems have been formulated to be compatible with cathodic protection design and meet requirements for alkali resistant aggregates and free sodium oxide content.

Anti-Carbonation Protection

Coatings

Untreated columns, walls and soffits are vulnerable to the damaging ingress of carbon dioxide, chlorides and water. This can lead to structural damage and safety issues.

They can create a dark, dismal environment in which customers do not feel safe and can lead to increased levels of crime causing customers to take their business elsewhere. They also look neglected and decayed due to the effects of weathering and vehicle pollution.

The MASTERSEAL range of anti-carbonation coatings can address these problems and give long-term structural protection from environmental damage and bring a light, airy, safe environment for users.

MASTERSEAL coatings can be applied to concrete, masonry and well bonded existing coatings.

Cathodic Protection

Anode systems and overlays

Cathodic protection systems have a long history and a sound theoretical base as a corrosion preventative measure. Indeed, independent authorities such as the US Federal Highways Agency declared as long ago as 1985 that "CP was the only proven method of stopping corrosion of steel regardless of the chloride content".

Recent advances in measurement and monitoring equipment mean that CP is becoming a more practical method of "permanent" repair. BASF offers a unique range of patented anodes and overlays for the CP design engineer.

EMACO CP Anode 60 is the world's first patented spray applied cementitious conductive anode system. With a life expectancy of over 20 years and low material and installation cost, this system provides unmatched value for money.

EMACO CP Anode 30 is a unique water based Ni-C modified conductive spray applied coating offering protection for a minimum of 10 years.

EMACO CP Overlay systems have been specially formulated for optimum durability and compatibility with mixed metal oxide anode mesh systems.

Corrosion Inhibitors



PROTECTOSIL CIT

Buildings, bridges, parking decks, steel-reinforced concrete structures represent major private and public investments. Over time, however, reinforcing steel can corrode and rust, leading to weakening of the structure if expensive repairs are not undertaken. PROTECTOSIL CIT can help!

PROTECTOSIL CIT protects steel-reinforced concrete with a double mechanism:

- Reduces active corrosion
- Protects against invasion by water-borne chlorides

Even in concrete exposed to high corrosion conditions, PROTECTOSIL CIT provides long lasting protection. PROTECTOSIL CIT is an innovative organofunctional corrosion inhibitor from BASF with outstanding features.

- Suitable for cast-in-place, precast and high-strength concrete
- Easy (spray-on) application for precast concrete
- Effective in structure under high-corrosion conditions
- Effective in high humidity conditions

PROTECTOSIL CIT interrupts the mechanism of corrosion!

Water is only one aspect of chloride-ion induced corrosion. Water molecules bind electrostatically to concrete, forming the conductive medium for the chloride-ion induced corrosion process that dissolves the rebar.

- PROTECTOSIL CIT acts efficiently against both aspects. PROTECTOSIL CIT's proprietary organofunctional chemistry interrupts the electrolytic current, causing a substantial decrease in corrosion and the by-product rust.
- PROTECTOSIL CIT provides a deeply penetrating barrier that prevents additional water and chloride ions from reaching the rebar.

The result: A dramatic decrease in corrosion!

Structural Strengthening



Composite systems

The MBRACE system is a fully integrated range of composite tow sheets, laminates and rods combined with specially formulated primers, adhesives and coatings.

Composite strengthening offers the engineer unique advantages of very low weight, very high tensile strengths and proven durability in extreme environments. The MBRACE range offers contractors and clients advantages of rapid installation, minimum disruption and substantially lower cost than other traditional methods.

MBRACE systems have been successfully used in structures as diverse as car parks, sports stadiums, highway bridges and historic masonry and timber framed buildings.

Systems available

Carbon fibre remains the most widely used composite strengthening system in the construction industry. BASF offers the highest quality tow sheets, laminates and preformed rods offering high and ultra-high tensile strengths.

Aramid tow sheets provide additional unique benefits of improved blast, impact and damage resistance. In addition, Aramid sheets are completely non-conductive and offer ease of handling and good drapability around structures including "square-cornered" columns.

Finally, a range of especially formulated primers, putties, saturants, adhesives and top coatings complete the MBRACE system.

Life is Colourful!



Get more out of your decks and floors.

Have you ever thought of using park deck walkways, entrance lobbies, lift floors, etc. to advertise your or your clients' business?

A picture says it all...

Colour your everyday life and make the floor of your business an integral part of your communication concept. Show your identity and place your logo, advertising messages or pictures on the floor. There is no limit to your imagination. We have the necessary know-how and technologies to bring your visions onto your floor, time after time.

Colour your visions!

You never get a second chance to make a first impression. Help brighten up your car park environment whilst at the same time passing on a message to your customers and, for carpark owners, generate extra revenue from advertising.

Thanks to the enormous variety of materials and colours, we are truly able to say that your imagination is the only limit to the selection of decorative floor coatings.

Whether new construction or an existing structure, place your confidence in a partner who understands your requirements and possesses the experience to develop and deliver tailor-made solutions.



Intelligent Solutions from BASF Construction Chemicals

Whatever your construction problem, whatever the structure 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
- Masterpren®** – Sheet Membranes
- Concresive®** – Resin Based Mortars, Adhesives and Injection Systems
- Conica®** – Sports Flooring
- Conideck®** – Hand and Spray Applied Waterproofing Systems
- Coniroof®** – PU Based Roofing Systems
- Conibridge®** – PU Based Membranes to Protect Bridge Decks
- Mastertop®** – Decorative and Industrial Flooring Solutions
- Glenium®, Rheobuild® and Pozzolith®** – Concrete Admixtures
- 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.

Further information on BASF is available on the Internet at www.basf.com

 **BASF**
The Chemical Company