

CONIBASE®

# Conibase® Infrastructure Waterproofing and Protection



 **BASF**

The Chemical Company

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## Infrastructure Waterproofing and Protection

BASF Construction Chemicals has developed a range of waterproofing, repair and protection systems utilising the latest cementitious, epoxy, polyurethane and composite technologies. Our Conibase® waterproofing systems has been developed to serve the needs of infrastructure builders and owners.

Our competence in terms of both 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 5 million m<sup>2</sup> of performance waterproofing, surfacing, repair and protection products to an international list of Conibase® projects which include names such as:

Bedford Lakes office development in the UK, Korushima/Akinada Bridge, Shimizu Omija Tunnel and Kuriyama Dam in Japan, MTR Rail tracks and MTR cut and cover tunnel in Hong Kong, Changi water reclamation plant and Resort World in Singapore, Simmering Power Station and Flemington Racecourse tunnel in Australia. With BASF Construction Chemicals you can be confident you have selected the right partner.



## Choosing the Correct Solution

Infrastructures such as cut and cover tunnels elevated railways and water retaining structures are constantly exposed to aggressive chemicals found in ground water and from urban run-off, therefore it's essential to protect the exposed surfaces to prolong their lifespan.

Specifying the correct solution for the waterproofing and protection of infrastructures 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 preserves the infrastructure to allow its long term use. Conibase® helps to reduce this complexity with simple robust systems.





# Specifying the Right System

## Systems for Every Application

BASF's range are waterproofing, repair, protection and structural strengthening systems are designed to meet the most exacting physical and chemical resistance needs. Whether it is an exposed rail track bed, the outside of a water retaining structure, the outside of a cut and cover tunnel, BASF can provide the solution.

Our range of Conibase® systems can cope with the harshest environments from acidic ground waters, to seawater and where tunnels are installed by the push through method. The systems, which are applied by fast curing spray application, can keep up with the most demanding construction schedule and have exceptional resistance to mechanical abrasion. Able to bridge minor cracks and compatible with cold jointing systems, Conibase® allows the structure to be fully waterproofed.

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.

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 easy.



## Below Grade Cut and Cover Tunnels

While the tunnel is exposed, it is important to ensure that it is fully waterproofed before the overburden is returned. As the Conibase® can be sprayed over the cold joints and can cope with surface cracking, it suits itself to this style of application. The system requires a minimum of space to install reducing the need to have large excavations often needed for other systems. Combined with a range of priming systems suitable for application to newly cast concrete, it can enhance the construction schedule. 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.

Basements and floors below ground are at risk from ingress of ground water or seepage after rain. This water ingress can create a long term deleterious effect on the concrete and should be excluded. Creating a complete envelope to prevent the ingress of water can be easily achieved with Conibase® systems for both the floor and walls of the structure.





## Concrete Repair and Protection

Water is one of the planet's most precious resources, and much infrastructure is now being constructed to secure water supplies. The reduction of seepage from reservoirs, the building of water recycling and desalination plants provide many headaches for the designer. Conibase® has been used to line reservoirs to stop the loss of water in hydro electric plants, to waterproof the outside of water recycling plants to prevent ingress of the ground water and to line channels to prevent the super saturated salt solution discharge from contaminating the surrounding land.

Conibase® can also be used for secondary containment by creating a waterproof and UV stable coating of bunds or retention ponds. Having high chemical resistance, it will give temporary protection allowing remedial action to take place.

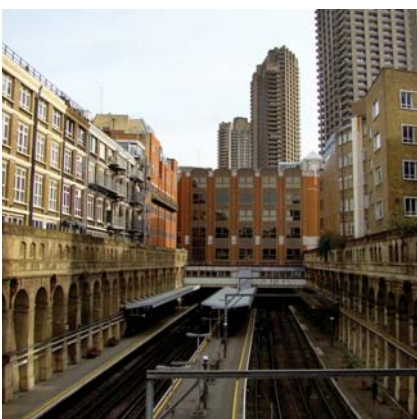
Whatever the situation, Conibase® has a solution that can be tailored to the needs of the structure and the demands of the construction or refurbishment process. If downtime is an issue and the structure needs to be returned to use quickly, then a fast track system is required. Our Conibase® systems can offer solutions to all the above.

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 Emaco® Nanocrete mortars and protecting with Masterseal® anti-carbonation coatings or corrosion inhibitors. More serious cases can be protected using Emaco® CP cathodic protection methods. In this field BASF also offers the tailor-made solution.

## Movement Joints

Failed dynamic movement joints can be another area of concern allowing salts to attack the concrete. BASF's range of Masterseal® and Sonolastic® jointing solutions is unrivalled in this area.

Whatever the nature of your below grade infrastructure, BASF can help you to make the right system choice. We have a fundamental understanding of concrete and the latest polymer technologies as well as an unrivalled track record in the waterproofing, protection and repair of infrastructures. 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.





# Infrastructure Protection and Repair

## A Complete and Totally Integrated Solution

**CONIBASE**® elastomeric waterproof membranes: spray or hand applied elastomeric crack bridging membranes to provide guaranteed long term protection even in heavy duty wear areas such as driven tunnels and aggressive ground waters.



**CONIDECK**® for waterproofing and protecting concrete. Available in a variety of colours.

**CONIROOF**® and **MASTERSEAL**® roofing membrane systems.

**EMACO**® **Nanocrete** and **SHOTPATCH**® cementitious concrete repair systems: for small or large scale replacement of spalled or damaged concrete.

**MASTERSEAL**® protective coatings for anti-carbonation and anti-graffiti: aesthetic improvement and protection to delay the onset of corrosion.

**MASTERFLEX**® and **WABO** jointing systems for new build or refurbishment of high movement joints in heavy traffic areas.

**EMACO**® **T** traffic repair mortars: for rapid setting repair of potholes, joint arises, etc. with a minimum down time and loss of revenue.

**MASTERFLEX**® and **SONOLASTIC**® polyurethane and polysulphide elastomeric joint sealants: fuel resistant, trafficable and architectural grades available for expansion joints and repair of live cracks.

**EMACO**® **CP** cathodic protection systems: for the only permanent solution to heavily chloride contaminated concrete structures.

**MASTERFLEX**® and **CONCRESSIVE**® structural adhesives and resin injection systems: for repair of non moving cracks.

**MASTERFLOW**® cementitious and resin grouts: for anchoring barriers, external cladding, etc.

**MBRACE**™ systems for structural strengthening and increasing load bearing capability: carbon, aramid and glass fibre tow sheets, laminates and rods with **MBRACE**™ resin systems.



# Specialist Solutions from BASF

## Why Choose Infrastructure Solutions from BASF?

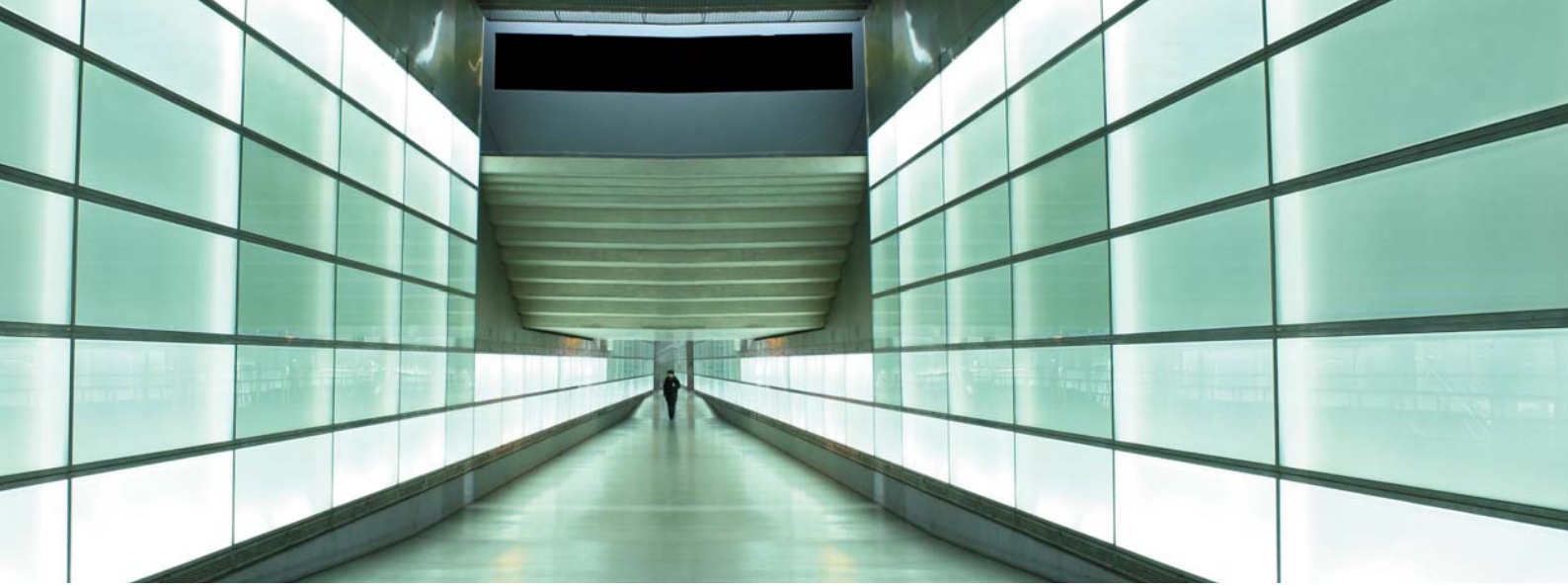
The Construction Chemicals Division of BASF is the world's largest provider of construction chemicals products, systems and services for new construction, repair and refurbishment. We have devised and successfully realised a huge number of diverse solutions around the world, under demanding and widely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

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

We will assist you in selecting the system that best meets your requirements. Our goal remains to enter into a long-term partnership with our customers and to ensure you get the most cost effective below ground waterproofing and protection system to meet your needs, now and in the future.





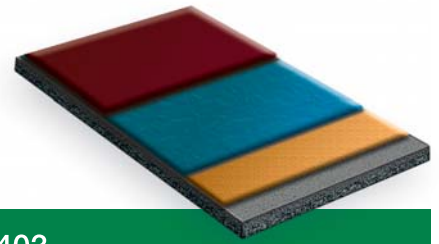
# CONIBASE<sup>®</sup> System Selector

System (CONIBASE <sup>®</sup> )	2403	2404	2405	2451	2452
Application					
Fast track crack bridging, waterproofing of exposed areas	■				
Fast track crack bridging, waterproofing of trafficable areas	■				
Crack bridging, waterproofing of exposed areas		■		■	
Crack bridging, waterproofing of walls and roofs of cut and cover tunnels			■		■
Crack bridging, waterproofing of basements			■		■
Crack bridging, waterproofing of covered channels and tunnels			■		■





# Protection for Your Assets



The Conibase® products protect the most vulnerable areas, 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.



## CONIBASE 2403

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 optional wear coat. The attractive, UV resistant top coat is easy to clean and maintain.

### MASTERTOP P 660



A low viscosity, fast curing, solvent free, 2 component polyurethane primer.

### CONIPUR M 810



Fast curing, solvent free, 2 component, polyurethane wear coats.

### CONIPUR TC 458/459



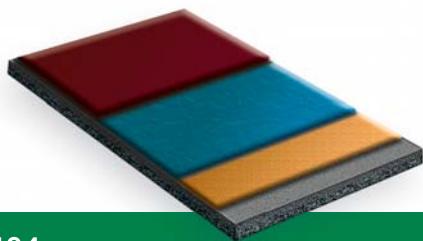
UV resistant, 2 component, modified top coats. Polyurethane

### Features and benefits

- fast installation
- can be walked 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
- UV and weather resistant
- resistant to fuels, battery acid, alkaline cleaners
- attractive appearance
- easy to clean and maintain


### Areas of application


Exposed secondary containment, flat areas and walkways where fast installation and short down times together with maximum crack bridging and wear resistance are of prime importance.




## CONIBASE 2404

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. Top coats are 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.

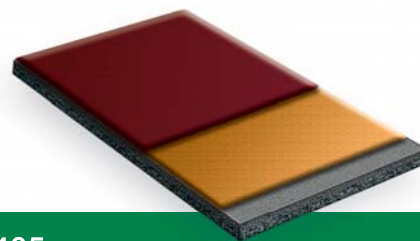
**CONIPUR M 810**  A spray applied, fast setting, 2 component, elastomeric, solvent and filler free, polyurethane waterproofing membrane.

**CONIPUR  
TC 458/459  
(exposed areas)**  A low solvent, single component, elastomeric, UV and weather resistant, polyurethane top coat.

**Features and  
benefits**


- elastomeric membrane 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
- UV and weather resistant (with top coat Conipur TC 458/459)
- attractive appearance
- easy to clean and maintain


**Areas of  
application** Exposed secondary containment where fast installation and short down times together with maximum crack bridging are of prime importance.



## CONIBASE 2405

A crack bridging system with spray applied waterproofing membrane where the membrane will not be exposed to UV. A range of primers available according to type and condition of substrate.

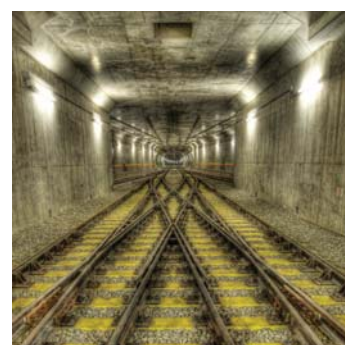
**Primer**  According to type and condition of substrate.

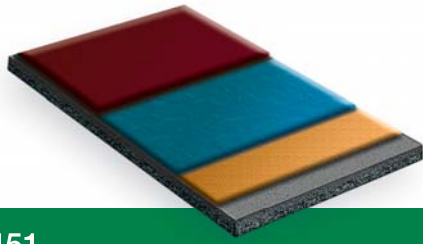
**CONIPUR M 810**  A spray applied, fast setting, 2 component, elastomeric, solvent and filler free, polyurethane waterproofing membrane.

**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 abrasion resistance
- skid resistant
- Not UV and weather resistant

**Areas of  
application** On any area that needs to keep the ground water or seepage out of any below ground or cover structure. Also suitable for roof gardens in conjunction with suitable geotextile layers.





## CONIBASE 2451

A crack bridging system with hand applied, elastomeric waterproofing membrane. Thixotropic versions suitable for application to vertical surfaces without runs, as well as easy application to complicated details. 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.

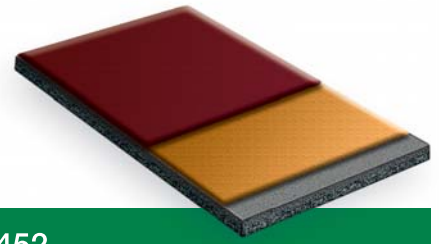
**CONIPUR M  
860/865Z**  
■ A hand applied, fast setting, 2 component, elastomeric, solvent and filler free, polyurethane waterproofing membrane.

**CONIPUR  
TC 458/459  
(exposed areas)**  
■ A low solvent, single component, elastomeric, UV and weather resistant, polyurethane top coat.

**Features and  
benefits**

- fast installation
- excellent wear resistance
- UV and weather resistant
- attractive appearance
- easy to clean and maintain

**Areas of  
application** Exposed secondary containment areas, decks and ramps where a spray installation is not warranted.



## CONIBASE 2452

An elastomeric, ground water resistant membrane system. A range of primers available according to type and condition of substrate.

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

**CONIPUR M  
860/865Z**  
■ A hand applied, fast setting, 2 component, elastomeric, solvent and filler free, polyurethane waterproofing membrane.

**Features and  
benefits**

- simple installation
- excellent abrasion resistance
- non UV resistant

**Areas of  
application** On any area that needs to keep the ground water or seepage out of any below ground or cover structure. Also suitable for roof gardens in conjunction with suitable geotextile layers.



# Intelligent Solutions from BASF Construction Chemicals

**Concresive**® - Resin Based Mortars, Adhesives and Injection Systems  
**Conibase**® - PU Based Basement and Below Ground Waterproofing Systems  
**Conibridge**® - PU Based Membranes to Protect Bridge Decks  
**Conideck**® - Hand and Spray Applied Waterproof Membrane Systems  
**Coniroof**® - PU Based Roofing Systems  
**Emaco**® - Concrete Repair Systems  
**Finestone**® - Exterior Insulation and Finishing Systems (EIFS)  
**Glenium**® - For Hyperplasticized Concrete  
**Masterflex**® - Joint Sealants  
**Masterflow**® - Precision and Structural Grouts  
**Masterpren**® - Preformed Membrane Waterproofing Sheets  
**Masterseal**® - Coatings and Waterproofing  
**Mastertop**® - Decorative and Industrial Flooring Solutions  
**MBrace**™ - Composite Strengthening Systems  
**Meyco**® - For Shotcrete and Spraying Equipment  
**PCI**® - Tile Fixing and Cement Underlays  
**Pozzolith**® - For Water-reduced Concrete  
**Rheobuild**® - For Superplasticized Concrete  
**Rheomix**® - For Improved Block Mortars  
**Rheoplus**® - Cost-effective Products for Hyperplasticized Concrete  
**Ucrete**® - Flooring Solutions for Harsh Environments  
**WABO**® - Expansion Control Systems

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 **BASF**  
The Chemical Company

*BASF is the world's leading chemical company: The Chemical Company. Its portfolio ranges from chemicals, plastics and performance products, to agricultural products, fine chemicals and oil and gas. As a reliable partner, BASF helps its customers in virtually all industries to be more successful. With its high-value products and intelligent solutions, BASF plays an important role in finding answers to global challenges such as climate protection, energy efficiency, nutrition and mobility.*

*Further information on BASF is available on the Internet at [www.basf.com](http://www.basf.com)*