Jobsite

Efficient solutions for Restoration, Waterproofing and Finishing

EXPERTISE
BUILDING

MC
BE SURE. BUILD SURE.

BE SURE. BUILD SURE.

MC-Bauchemie, a German multinational company with more than 60 years of experience and operations in 40 countries, is one of the largest and most reputable manufacturers of construction chemicals in the world. Since 2008, the company in UAE has been present in principal infrastructure and building projects in the country, with solutions for construction, restoration and protection of structures. Among the main projects, we highlight the Dubai Marina Mall parking, Dubai Mall, Dubai Water Canal ,ICD Brookfield Place ,Madinat Jumeirah , Aloft Marina Hotel, Dubai Metro Expo Link Tunnel and many other projects in the Middle East.

As one of the most reputable solution providers for the infrastructure market, MC-Bauchemie also presents its product line for the construction market. With the same philosophy of offering solutions, customized service and support at all stages, MC-Bauchemie raises the bar for market quality.

MC for Buildings

- Tile Adhesives & Grouts
- Waterproofing and Protection
- Construction Products
- Concrete Repair

MC for Concrete Industry

- Concrete Admixtures
- Concrete Finish
- Site Products

MC for Infrastructure & Industry

- Concrete Finish
- Waterproofing and Protection
- Construction Products
- Concrete Repair
- Flooring Systems
- Injection Systems

MC for Consumer

- Tile Adhesives & Grouts
- Waterproofing and Protection

BE SURE. BUILD SURE.

The simplest product can play an essential role in the success of a building or restoring project. Its misuse or wrong specification can cause problems for the structure and consequently for the lives involved. That's why for over 60 years MC has been at your service, developing special solutions with the highest quality standards, providing advice, training and taking care that everything goes perfectly. MC. Be sure. Build sure.

Take a close look at the concept "Be sure. Build Sure"
Visit our website: www.mc-bauchemie.com.

Buildings are structures composed of several construction areas and stages, subjected to pre-determined techniques and materials in a project design that require special attention.

Taking all these factors into consideration, MC-Bauchemie presents the construction market with a set of solutions for every situation in the construction project, always aiming for safe and secure building with quality results, assuring the builder's peace of mind and the user's comfort.

Content

Learn about MC solutions for each application area

1 CONCRETE STRUCTURES..... p. 6

Ortolan – Release agent
Emcoril – Concrete curing
Emcefix – Concrete cosmetics and facelift
Nafufill KMH and Latex – Bonding agents, corrosion protection and mortars adhesion
Emcekrete – High performance no-shrinkage grout

2 UNDERGROUND STRUCTURES AND ELEVATOR SHAFTS..... p. 14

Nafufill – Surfaces and conrete repairs
MC-REP – Epoxy repair mortar
MC-DUR – Floor coatings

3 INTERNAL AREAS.....p. 18

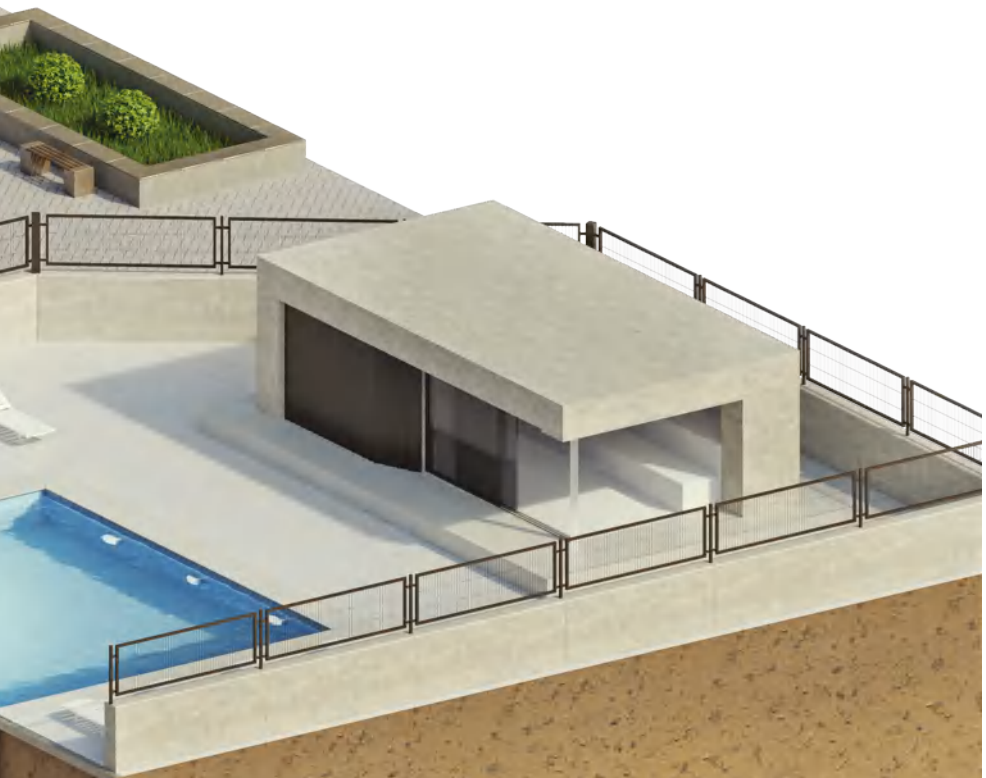
Nafuflex – Waterproofing
MC-Proof – Cementitious waterproofing system
MC-Tiles D1 – Acrylic primer for non-absorbent substrates
MC-Color – Concrete protection and aesthetic shaping

4 EXTERNAL AREAS AND FACADES..... p. 20

Nafuflex – Waterproofing
MC-Proof – Cementitious waterproofing system
MC-Tiles D11 – Primer for absorbent surfaces
MC-Color – Concrete protection and aesthetic shaping

5 POOLS, WATER STORAGE TANKS AND ROOFS.... p. 25

Nafuflex – Waterproofing
MC-Proof – Cementitious waterproofing system
MC-Injekt – Crack sealing and area sealing injection



Ortolan

Protects, preserves, separates

With Ortolan release agents you can release the formwork from the hardened concrete simply and safely. Your benefit from easier de-molding: you gain superb fair-faced concrete, avoid pores and cavities. And this without influencing the hardening or coloration of your concrete. At the same time, the release agents protect and preserve the formworks, lessen corrosion, and can therefore increase their life spans. For your durable premium concrete surfaces.

Complementary tools	
MC-Pump 1	Canister pumps
MC-Pump 2	Drum pumps
MC-Pump 3	Backpack sprayer
MC-Spezialspritze	Compression sprayer

This is how it works

Ortolan release agents are ready to use. Apply the liquid release agent evenly and sparingly – optimally by using a mobile spreader. Whether you use Ortolan in barrel or canister, with the canister pump MC-Pump 1 and with the barrel pump MC-Pump 2 concrete release agents can be sprayed perfectly. Both systems are electrically operated and provide a convenient handling. To increase your mobility use MC-Spezialspritze.

For best results avoid puddles in indentations and edges of the formwork. For slick formworks we suggest using a rubber for smoothing off or wiping.

Ortolan

Classic 715AE

Water based concrete release agent

Product properties

- Ready-to-use.
- Water-based.
- Paintable and sprayable.
- Strong releasing effect.
- Protects and preserves for works.
- Prevents swelling, warping, and drying out of wooden formworks.

Areas of application

- Universally suitable for use in concrete and reinforced concrete constructions
- For absorbent and non-absorbent formworks
- For demoulding of concrete goods

Characteristics

Density
~0.85 g/cm^3

Consumption
10–15 ml/m^2
(non-absorbent formwork)
15–30 ml/m^2
(absorbent formwork)

Flash Point
> 100 °C

Colour
Whitish

Consistency
Liquid

Form of delivery
210L drum

Ortolan

Classic 731AE

Solvent-based emultion shutter release agent

Product properties

- Ready to use, mineral oil based concrete release agent
- Exceptional separating properties
- Slows corrosion if separating film intact
- Suitable for extremely thin separating films
- Protects and preserves steel formworks
- Especially mild odour
- Chemiacal acting
- Easily sprayable

Areas of application

- Suitable for use in concrete construction
- Suitable for use in Precast Industry
- Suitable for all types of formworks

Characteristics

Density
~0.94- 0.98 g/cm^3

Consumption
8–15 ml/m^2
(non-absorbent formwork)
8–40 ml/m^2
(absorbent formwork)

Flash Point
64 °C

Colour
Yellowish

Consistency
Liquid

Form of delivery
30L disposable canister 200L drum
1000 L container

Ortolan

Classic 711AE

Solvent-free release agent

Product properties

- Fast biodegradable acc. to OECD 301 F (99% after 28d)
- Ready to use
- Solvent free and Silicon free
- Easily sprayable
- For high quality concrete surfaces
- Very good seperating properties
- Intensive to weathering
- Economical consumption
- Odourless

Areas of application

- Universally suitable for use in concrete and reinforced concrete constructions
- Suitable for absorbent and non-absorbent formworks (e.g wooden, metal and plastic form works)
- Suitable formworks up to +80 °C

Characteristics

Density
approx. 0.85

Consumption
10–15 ml/m^2
(non-absorbent formwork)
15–30 ml/m^2
(absorbent formwork)

Flash Point
> 140 °C

Colour
Dark Yellow

Consistency
Liquid

Form of delivery
1000 L container
200 L drum
30 L disposable canister

Emcoril

Protection for your concrete

The optimal characteristics of the concrete surface depend immensely on a consistent drying method due to high temperatures and low humidity or draft. This can damage the concrete surface. To protect your fresh concrete against drying too fast, Emcoril is your friend. It eliminates cracks, cavities, or spalls. With the obvious advantages compared to plastic tarpaulin or burlap mats, there is no stack or tunnel effect.

Your direct benefits:

- Less personnel cost
- Faster processing through spraying
- Evaporation during laying time is reduced
- Water retention and processability is increased
- Concrete is easy to straighten
- Concrete will cure well and will have a shiny finishing due to premium quality

Emcoril

Protect M lite

Curing agent for concrete and screed

Product properties

- Ready-to-use water-based paraffin dispersion
- Good evaporation protection especially for normal environmental conditions
- Good barrier effect
- Facilitates optimum hydration progress in the concrete layer close to the surface
- Minimises the occurrence of early shrinkage cracks
- Decreases the rate of carbonation
- Dries rapidly
- Solvent-free
- Film-forming
- Apply by spraying

Areas of application

- Evaporation protection for general concrete construction, e.g. concrete slabs, walls, foundations and columns
- Evaporation protection for indoor and outdoor concrete
- For application on fresh to matt-damp concrete

Characteristics

Density

kg/dm³ approx. 0.99

Viscocity

seconds 11 kinematic to DIN 53211

Consumption

g/m² 150 - 250

Drying Time

approx. 3 h(+ 20° C)

Barrier coefficient

% approx. 60

(at 150 g/m² dosage)

approx. 85 with 250 g/m²

presults determined at 21°C ±2°C and 50% relative humidity

Form of delivery

30 kg canister bucket
200 kg barrel

Emcoril

Protect M

High quality curing agent for concrete and screed

Product properties

- Solvent free and ready to use
- High barrier coefficient
- Can be applied by rolling, brushing or spraying
- Protects from extreme exposure to sun and air movement
- Makes moistening of fresh concrete or screed surfaces unnecessary
- Prevents insufficient hardening
- Reduces the speed of carbonization
- GISCODE: NBM10
- Film forming
- Curing approved according to TL-NBM-StB '09, type BM+VM

Areas of application

- Curing of concrete and screed surfaces indoor and outdoor
- Curing of road concrete

Characteristics

Density

kg/dm³ approx. 0.98

Viscosity

Seconds 11 kinematic to DIN 53211

Barrier coefficient

% approx. 87 TL NBM-StB 09
% RVS 11.06.42
24 h 98
72 h 97
7 d 95

Consumption

Approx. 150-200 g/m²

Drying Time

Approx. 4.5 hours (at +20° C)

Form of delivery

30 kg canister
200 kg barrel

Emcoril

Protect H

Acrylic-based curing agent

Product properties

- Ready-to-use water-based polymer dispersion
- High level of evaporation protection, strong barrier effect
- Facilitates optimum hydration progress in the concrete layer close to the surface
- Minimises the occurrence of early shrinkage cracks
- Decreases the rate of carbonation
- Dries rapidly
- Alkali-resistant
- Solvent-free
- Film-forming
- Can be applied by spraying, rolling or brushing

Areas of application

- Concrete curing for general concrete constructions, e.g. concrete slabs, walls and columns
- Concrete curing for non-trafficable surfaces without grip requirements
- For immediate application on the freshly demoulded concrete

Characteristics

Density

kg/dm³ approx. 1

Viscocity

seconds 13 kinematic to DIN 5321

Barrier coefficient

Approx. 20 TL NBM-StB 09
pH value approx. 8.5

Consumption

Approx. 150-200 g/m²

Drying Time

Approx. 4.5 hours (at +20° C)

Form of delivery

30 kg canister(s) 200 kg
drum 1,000 kg container

Emcefix

Facelift for concrete surfaces

With cosmetic fillers from MC, concrete surface imperfections such as chips, flaking, gravel pockets, pores, pitting, blowholes or colour differences can be rectified quickly, simply and effectively to deliver a first-class fairfaced finish.

The visual appearance of a concrete surface is significantly dependent on the concrete formulation and the placement process employed. There are also a number of other external influences that play a part – such as the mix of ambient temperature, humidity and the sun's radiation, not to mention the curing and protection of the concrete. Practitioners know that things rarely go as smoothly as clients might wish. So, if concrete defects occur, it is good to know how these can be corrected with relative ease. Emcefix, the advanced concrete cosmetic system from MC, is ideal for reinstating or creating the desired appearance. Where the concrete surface has to be absolutely immaculate, the concrete cosmetic systems of the Emcefix range comprising bond coat, coarse filler and fine filler are the answer, with the option of an exceptionally fine finish using superfine fillers from MC.

- Polymeric mortar for concrete repairs
- Protected and integrated adhesive
- Low shrinkage (fiber-reinforced)
- High carbonation resistance
- Can be applied manually or sprayed on
- Can be applied to walls and ceilings
- Various thickness for applications

Emcefix

FR

Fine filler cosmetic repair to new construction

Product properties

- Polymer modified
- One component
- Shrinkage-controlled mortar
- Hand application
- Suitable for thickness of 0.5 mm to 4.0 mm
- May also be used as scratch coat as well as pore and cavity filler

Areas of application

- Cosmetic repair for new construction
- Filler for non-accessible and non-driven on concrete components, both interior and exterior
- Closing of pores, blow holes and surface roughness

Characteristics

Density

1.72-1.82 kg/L

Workabulity Time

45 minutes (at +30° C)

Compressive Strenght

N / mm^2 ≥10 28 Days

BS EN 196-1 :2005 clause 9.2

Form of delivery

25 kg bag

Emcefix

CR

Fiber-reinforced PCC concrete repair mortar

Product properties

- Polymer modified
- One component
- Shrinkage-controlled mortar
- Fiber reinforced
- Hand and spray application
- Suitable for thickness of 6 mm to 50 mm

Areas of application

- Repair mortar for non-traffic areas
- Vertical and overhead repairs
- General concrete and masonary repair
- Larger scale repairs where formwork cannot be erected

Characteristics

Density

2.0-2.1 kg/L

Workability Time

40 minutes (at +30° C)

Adhesion to concrete

N / mm^2>1.5

Compressive Strength

N / mm^2 ≥55 28 Days

BS EN 196-1 :2005 clause 9.2

Flexural Strength

N / mm^2 ≥4.0 28 Days

Form of delivery

25 kg bag

Emcefix

HB

Flowable non-shrink micro concrete

Product properties

- Single component
- Reay-to-use, requires only addition of specified amount of water
- High flowable mix with the use of minimum water content, good flow properties
- High initial / final strengths
- Shrinkage controlled, with high early strength
- Excellent bond to all concrete substrates
- Flowable with no risk of honeycombs or segregation
- High compressive strength with low permeability
- Resistant against atmospheric gas, frost and thaw cycles
- Excellent resistance to chloride, and chemical attack
- Low alcaline, salts and chloride free product

Areas of application

- Repair of structural concrete section where it is difficult to cast mortar
- Casting over steal jackets of columns for adjusted loads
- Damaged reinforced concrete repair
- Ideal for filling larger voids repairs

Characteristics

Density

2.2 kg/L

Workability Time

45 minutes (at +30° C)

Adhesion to concrete

N / mm^2 ≥1.0 2 per mm layer thickness

Compressive Strength

N / mm^2 ≥10 28 Days

Flexural Strength

N / mm^2 ≥7.9 28 Days

Form of delivery

25 kg bag

Emcefix

PR

Fine filler cosmetic repairs in precast

Product properties

- Polymer modified
- Shrinkage controlled mortar
- Single component
- Hand application
- Suitable for thickness of 0.1 mm to 2.0 mm
- May also be used as scratch coat as well as pore and cavity filler

Areas of application

- Cosmetic repair for precast
- Filler for non-accessible and non-driven-on concrete components, both interior and exterior
- Closing of pores, blow holes, used as scratch coat

Characteristics

Density

1.65-1.75 kg/L

Workability Time

45 minutes (at +30° C)

Compressive Strength

N / mm^2 ≥4 28 Days
BS EN 196-1 :2005 clause 9.2

Form of delivery

20 kg bag

Emcefix

PR+

Fine filler for cosmetic repairs in precast

Product properties

- Polymer modified
- Shrinkage-controlled mortar
- Single component
- Hand application
- Stable for thickness up to 3.0 mm
- May also be used as scratch coat as well as pore and cavity filler

Areas of application

- Cosmetic repair for precast
- Filler for non-accessible and non-driven-on concrete components, both interior and exterior
- Suitable for applications in coastal areas
- Closing of pores, blow holes, used as scratch coat

Characteristics

Density

1.65-1.75 kg/L

Workability Time

40 minutes (at +30° C)

Compressive Strength

N / mm^2 ≥4 28 Days
BS EN 196-1 :2005 clause 9.2

Form of delivery

20 kg bag

RECTIFYING DEFECTS IN CONCRETE

IF CONCRETE DEFECTS OCCURS, COSMETICS SYSTEMS FROM MC ARE IDEAL FOR CREATING THE DESIRED APPEARANCE

CREATING A FAIR FACED APPEARANCE

FOR ANY TYPE OF CONSTRUCTION

Nafufill and MC-Latex

Mineral corrosion protection coating

Nafufill KMH is used not only as an active corrosion protection coat for exposed concrete steel in reinforced concrete constructions but also as bond coat for concrete replacement systems for repair of new and old structures. It is suitable for interior and exterior use and is certified according to EN 1504 part 7 for principle 11, procedure 11.1.

As corrosion protection, Nafufill KMH is applied onto the prepared reinforced steel in two work steps, using suitable painting tools (brushes, paintbrushes). Tying wires, edges and the juncture between reinforcement and concrete must be treated thoroughly to achieved the necessary layer thickness.

As bond coat, before application of Nafufill KMH the substrate must be pre-wetted. Highly absorbent substrates must be pre-wetted repeatedly. Nafufill KMH must then be brushed thoroughly into the slightly damp, non-saturated substrate.

- Certified suitability as active corrosion protection coat according to DIN 50017, DIN 50018 and DIN 50021.
- Approved according to ZTV-ING, part 3 "Solid Construction" for the areas of use PCC I and PCC II and according to DafStb-repair guideline for exposure classes M2 and M3.

Nafufill

KMH

Mineral corrosion-protection coating and bond coat

Product properties

- Cement based
- Single component
- Quickly overworkable

Areas of application

- Corrosion protection for reinforcement
- Bond coat for interior and exterior applications

Characteristics

Fresh mortar density

2.10 kg/dm 3

Working Time

75 min at +5°C

60 min at +20°C

45 min at +30°C

Consumption dry mortar

1.7 kg/dm 3

-Overworkbale after

Approx. 3 hours

(between 1st and 2nd corrosion protection coating)

Approx. 3 hours

(between 2nd corrosion protection coating and bond coat application)

Form of delivery

Packing unit 2 x 5 kg bags,
sack goods @ 20 kg

MC-Latex

A

Acrylic bonding agent and curing aid

Product properties

- Single component
- Acrylic resin modified
- Bonding agent for cementitious mortar
- Ready to use
- Applied by brush or spray
- Also used as curing aid

Areas of application

- For vertical and overhead applications
- External and internal applications

Characteristics

Tensil bond strength

at 7 days > 1.8N/mm^2

Curing efficiency

> 55%

Form of delivery

5 kg bag

MC-Latex

HP

Polymer and mortar additive

Product properties

- Improves adhesion of mortars
- Increases elasticity of mortars
- Reduces shrinkage and stress cracks
- Improves workability
- Reduces permeability of cementitious materials

Areas of application

- Bonding agents
- Cement floor screeds
- Cement renders
- Tile adhesives
- Masonery mortars

Characteristics

Solid Content

~38 %

Density

Approx. 1.1kg / L

Coverage (depending on mixing ratio)

kg/m^2

lit/ m^2/mm

lit/kg

~ 0.1

~ 0.3

~ 0.2

as bonding agent

as mortar additive

as tile adhesive additive

Increased Flexural Strength

% + 80 compared to mortar without MC-Latex HP

Reduction in water absoprtion

% -68 after 24 hours compared to mortar without MC-latex Hp

Application Condition

°C % > 8; < 30 max. 80

Air, substrate and material temperature relative humidity

Form of delivery

20 L container

Emcekrete

Transferring strengths

Whether for underfilling of ceiling or wall connections, for grouting steel components in concrete or rigid joints between precast elements, for precision machinery, bridge bearings, crane rails, turbines, overhead contact line masts or steel constructions, the hydraulic setting grouts Emcekrete provide the appropriate system for your requirements. Trust the high initial and final strengths and rapid hardening even at low temperatures, as well as resistance to oil, water and deicing salts. Constant traction with superior bonding to the substrate.

This is how it works

The substrate must be solid and free from anti-adhesive residues. Carefully moisten the concrete surface to be grouted and remove excess water. Intersperse the grouting concrete or mortar into the prepared water, mix with a pugmill mixer or slow mixing dual agitator tool for at least 3 minutes without lumps and process directly. Avoid air locks by filling in from just one side and support the flowing process with a wire loop. For further advice please see our general processing manual for hydraulic grouting concrete and mortars or ask your personal expert adviser.

Emcekrete

GP

General purpose non-shrink grout

Product properties

- Easy to mix and apply, just add water
- Pre-packed in the factory
- Non-shrink
- High early strength
- Non-corrosive
- Good flow characteristics and self-compacting
- Low permeability and high durability
- Chloride free

Areas of application

- Void filling, grouting under base plates, fence posts, etc.
- Emcekrete GP is a general-purpose cementitious non-shrink grout that can be used in several applications such as void filling, grouting under base plates, fence posts...etc.

Characteristics

Grain size
0–3 mm

Grouting Thickness
10–100 mm

Processing Time
45 minutes (at +20 °C)

Consumption
Approx. 2.05 kg/dm^2

Compressive Strength

After 1 day	14.0
After 7 days	54.0
After 28 days	60.0

Flexural Strength
N/mm^2 ≥ 12.0 @ 28 days

Form of delivery
25 kg bag

Emcekrete

HP

High performance, shrinkage compensated cementatious grout

Product properties

- Two-stage shrinkage compensated
- Pre-packed in the factory
- Non-shrink
- High early strength
- Rapid strength development
- High ultimate strength
- Chloride free
- Excellent flowability
- Adjustable consistency

Areas of application

- Concrete repairs
- Beam and clumn enlargements
- Concrete anchores
- Column bases
- Bridge bearings
- Machine foundations
- Cavities

Characteristics

Grain Size
0–3 mm

Grouting Thickness
10–100 mm

Processing Time
45 min. (at +20°C)

Consumption
2.0-2.2 kg/dm^3

Compressive Strength

After 1 day	25.0 N/mm^2
After 7 days	45.0 N/mm^2
After 28 days	60.0 N/mm^2

Flexural Strength
N/mm^2 ≥ 8.0 @ 28 days

Form of delivery
25 kg bag

Emcekrete

70 F

High early and final strengths grout

Product properties

- Ready to use, just mix with water
- Highly flowable
- High early and final strengths
- Non-shrink
- Chloride free
- High tensile strengths
- Water impermeable

Areas of application

- Rigid precast joints
- Precision machines, machine foundations
- Anchore screws, fixing and base plates, steel and concrete supports
- Bridge bearings, crane rails
- Steel constructions, fastening bolts, steel elements in cocnrete
- Wind turbains

Characteristics

Grain Size
0 – 3 mm

Grouting Thickness
10–75 mm

Processing Time
30 minutes (at +20 °C)

Consumption
Approx. 2.05 kg/dm^3

Compressive Strength

After 1 hour	25.0 N/mm^2
After 24 hours.	55.0 N/mm^2
After 28 days	70.0 N/mm^2

Flexural Strength
N/mm^2 ≥ 7.5 @ 28 days

Form of delivery
25 kg bag

Nafuflex

Seamless. Jointless. Flexible.

Nafuflex adjusts optimally to the substrate. Even projections, light shafts and connections can be waterproofed with this polymer based bitumen rapidly, easily and above all, safely. Depending on weather conditions and application you can choose between a one component or two component product.

Complementary tools
Steel floats or trowels or by suitable spray equipment

DPK

Two-component insulation panel adhesive

Product properties

- Trowelable consistency
- Highly efficient and good adhesion
- Solvent free

Areas of application

- Adhesive for perimeter insulation

Characteristics

Processing Time

Approx. 60 min (at 20°C and 65% relative humidity)

Processing Temperature

≥ +5 °C (air and substrate temperature)

Consumption

1.5-2 kg/m²

Drying Time

1- 2 days (at 20 °C)

Form of delivery

28L bucket
(Pallet: 12 buckets)

Nafuflex

1 K

Single component waterproofing

Product properties

- Polymer modified bituminous thick coating (PMBC)
- Highly flexible and crack bridging
- Trowelable consistency
- Solvent free
- Environmentally friendly
- Approved in accordance with EN 15814

Areas of application

- Waterproofing of vertical, horizontal and inclined surfaces for protective layers
- Soil moisture and non-pressing water
- Temporary accumulating percolating water up to a maximum foundation depth of 3m below ground level

Characteristics

Density

0.75 g/cm3

Processing Time

≥ 5 °C (air and substrate temperature)

Consumption

3.6 L/m² (3.6 mm wet, 3 mm dry layer thickness)

4.8 L/m² (4.8 mm wet, 4 mm dry layer thickness)

Drying Time

2-4 days (at +20 °C)

Form of delivery

30L bucket
(Palett: 12 buckets)

Nafuflex

Basic 1

Single component waterproofing

Product properties

- Polymer modified bituminous thick coating (PMBC)
- Extra fast drying properties
- Highly flexible and crack bridging
- Trowelable consistency
- Highly economical
- Solvent free
- Environmentally friendly
- Approved in accordance with EN 15814

Areas of application

- Waterproofing of vertical, horizontal and inclined surfaces for protective layers
- Soil moisture and non-pressing water
- Temporary accumulating percolating water up to a maximum foundation depth of 3m below ground level
- Water pressing from the outside (ground water) up to a maximum immersion depth of 3 m (in combination with building structures made of waterproof concrete)

Characteristics

Density

0.7 g/cm3

Processing Temperature

≥ 5 °C (air and substrate temperature)

Consumption

3.6 L/m² (3.6 mm wet, 3 mm dry layer thickness)

4.8 L/m² (4.8 mm wet, 4 mm dry layer thickness)

Drying Time

1-2 days (at +20 °C)

Form of delivery

30 kg bucket
(Pallet: 12 buckets)

Nafuflex

Basic 2

Two-component waterproofing

Product properties

- Polymer modified bituminous thick coating (PMBC)
- Extra fast drying properties
- Highly flexible and crack bridging to 2mm
- Trowelable consistency
- Impervious to radon
- Highly economical
- Solvent free
- Environmentally friendly
- Approved in accordance with EN 15814

Areas of application

- Waterproofing of vertical, horizontal and inclined surfaces for protective layers
- Soil moisture and non-pressing water
- Temporary accumulating percolating water up to a maximum foundation depth of 3m below ground level
- Water pressing from the outside (ground water) up to a maximum immersion depth of 3 m (in combination with building structures made of waterproof concrete)

Characteristics

Density

1.15 g/cm3

Processing Time

1-2 hours (at +20°C and 65% relative humidity)

Processing Temperature

≥ +5 °C (Air and substrate temperature)

Consumption

4.8 kg/m² (4.2 mm wet, 3 mm dry layer thickness)

6.6 kg/m² (5.7 mm wet, 4 mm dry layer thickness)

Drying Time

1 – 2 days (at +20°C)

Form of delivery

28 kg bucket
(Palett: 12 buckets)

MC-Proof

Protects, preserves, separates

Areas with direct or indirect contact with residential water such as bathrooms, toilets, kitchens, laundries and balconies need to be properly waterproofed to avoid reworking and maintenance disturbances. Because they are environments with construction details, such as the drains, pipes and different elements coming together, waterproofing materials need to be highly flexible and easy to apply.

These reactive and dispersing waterproofing systems have excellent resistance to water, their outstanding resistance to long-term weathering, good scratch resistance and load-bearing capacity. MC brings an innovative membrane to the market ready to use copolymers base that is quick and simple to apply, resistant to cement alkalinity and works with adhesive mortars directly on it.

MC-Proof

500 Flex

Two-component flexible cementitious waterproofing

Product properties

- Flexible and crack-bridging
- Withstands high positive and negative hydrostatic pressures
- Alkali-resistant
- High elasticity
- Excellent bond to concrete and masonry
- Easy application by brush, trowel or spray

Areas of application

- Internal waterproofing under tiles for wet areas such as toilets, bathrooms, etc.
- Exterior waterproofing of soil-touching structural element.

Characteristics

Desnity

Approx. ~1.75 g/cm^3

Tensile Properties

N/mm^2 1.30 at 28 days

Water Pressure

Resistance to 5 Bar
Negative water pressure
Passed as per DIN1048-Part 5
Resistance to 7 Bar
Positive water pressure
Passed as per DIN1048 -Part 5

Crack Bridging Ability

mm >2 mm ASTM C1305-08

Water Penetration under pressure (1.5bar)

mm Nil 7 days BS EN 14891

Pull of Strength

MPa 1.70 28 daysASTM D4541

Pot Life

at 30 ° 3 hours

Form of delivery

24 kg bag
8 kg bucket

MC-Proof

501 Flex AE

Two-component flexible cementitious waterproofing

Product properties

- Flexible and crack-bridging
- Withstands high positive hydrostatic pressures
- Alkali-resistant
- High elasticity
- Excellent adhesionn.Bonds to porous and non porous surfaces.
- To provide protection to concrete surfaces from carbonation and chloride attack.
- UV Resistance
- Fire Rating and Perfomance as per ASTM E84-18 , BS EN 13501-1:2018

Areas of application

- Waterproofing water retaining structures and water excluding structures.
- Easy Application by brush, roller,trowel or spray.
- Exterior Waterproofing undercladding

Characteristics

Density

Approx. ~1.77 g/cm^3

Water Pressure

Resistance to 5 Bar
Passed as per BS EN 12390-8

Elongation at Break (%)

% ≤ 40 ASTM D638-14

Crack Bridging Ability

mm 3.2 ASTM C1305-08

Carbon Dioxide permeability (i)

g//m^{2}d 2.104

UV resistance

Change in color , not observed , ASTM G154-16

Consumption Per Layer

1.7 Kg 1 mm dry layer thickness

Form of delivery

24 kg bag
8 kg bucket
[1]

TBW0300637
THOMAS BELL-WRIGHT

1.Refer to www.tbwcert.com for validity and full documentation

MC-Proof

DF 8

Single-component, waterproofing membranes for outdoor use

Product properties

- Single component, ready to use
- High flexibility and elasticity
- Easy and quick application
- Resistant to UV rays, able to be exposed to weather and eventual traffic of people
- Reflects the sun's rays due to its white color, reducing heat absorption of the structure
- Open to diffusion of water vapor (bubbles are not formed)
- Protection against carbonation
- 1 mm dry thickness

Areas of application

- Roof slabs
- External walls (Façades)
- Surface of non-accessible areas and external non-trafficable areas

Characteristics

Density

1.4 g/cm^3

Solid Content

60%

Elongation at break

160% meets NBR 13,321

Time between Coats

160% meets NBR 13,321

Consumption

0,5 kg/m^2 1st coat

0,7 kg/m^2 2nd coat

Pot Life

12 Months

Form of delivery

12 kg bucket

MC-proof

DF 9

Single-component crack-bridging waterproofing

Product properties

- Flexible and crack-bridging
- Highly elastic
- Open to vapor diffusion
- Solvent-free
- Can be rolled up and troweled
- Easy and quick application

Areas of application

- Internal waterproofing under tiles for wet areas such as toilets, bathrooms, etc.
- Sealing of concrete, lightweight concrete, porous concrete, joint full brickwork, cement screeds and calcium sulfate screeds, plasters of the mortar categories CS II, CS III and CS IV
- Sealing of BOTAMENT BP building boards, fiber cement boards, gypsum plaster boards, gypsum walls
- Sealing of mastic asphalt screeds (IC 10)

Characteristics

Density

Approx. 2.0 g/cm^3

Elongation

% > 100

Time Interval between individual layers

Hours ~ 4

Time Interval between last layer application and fitting of tiles

Hours ~ 12

Application & Substrate Temperature

°C + 8 to + 30

Form of delivery

24 kg bag
8 kg bucket

FREES UP AREA FOR LAYING IN JUST
8 HOURS
CONVENTIONAL METHOD: 7 DAYS

LAYING DIRECTLY UNDER THE WATERPROOFING
RESISTANT AGAINST MORTAR ALKALINITY

ROLL OR BRUSH APPLICATION
MINIMIZES APPLICATION ERRORS

USES LESS PRODUCT AND LOW DRY THICKNESS
DF9: 1,0 kg/m^2 / CONVENTIONAL METHOD: 3,0 kg/m^2

MC-Color

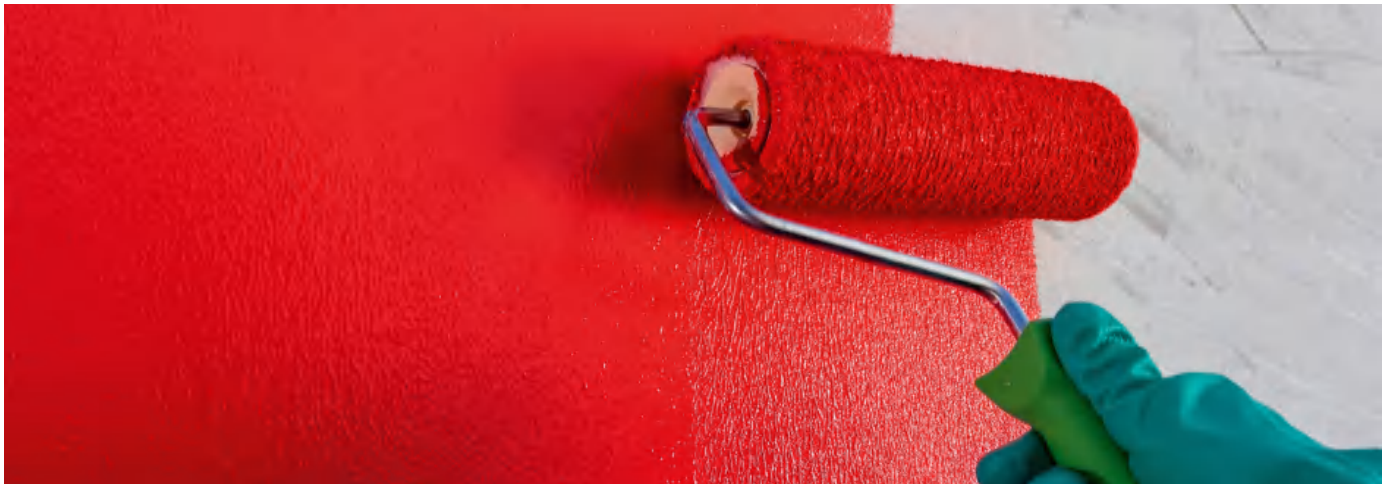
Concrete protection and aesthetic shape

The demands placed on modern surface protection systems nowadays go beyond pure concrete preservation: Hence MC-Color systems also fulfil aesthetic requirements such as highlighting the concrete character through transparent impregnations or the coloured conversion of concrete surfaces.

With the product lines MC-Color Proof and MC-Color Flair you now have at your disposal a choice of high-performance coatings: Whether transparent or pigmented, and with or without graffiti protection – the three performance variants “pure”, “pro”, and “vision” ensure you will always find the right solution for your particular application.

Proof	Proof pure	Proof pro	Proof vision
Impregnation + transparent coating	Impregnation and glazing base	Concrete protection concrete protection	Concrete and graffiti protection

Flair	Flair pure	Flair pro	Flair vision
Pigmented coating	Coloured concrete protection	Coloured, dirt-repelling concrete protection	Coloured concrete and graffiti protection



MC-Color

Proof pure

Transparent copolymer dispersion with very good weathering resistance and low soiling tendency

- Ready to use
- Impregnation of concrete surfaces
- Transparent base product for glaze creation
- Open to water vapour diffusion (s_{d,H_2O} = 0.2 m)
- Carbonation-resistant (s_{d,CO_2} = 75 m)
- Water repellent
- Certified acc. to EN 1504-2

MC-Color

Proof pro

Transparent copolymer dispersion with very good weathering resistance and extremely low soiling tendency

- Ready to use
- Concrete protection for weather-exposed exterior surfaces
- Open to water vapour diffusion (s_{d,H_2O} = 0.27 m)
- Carbonation-resistant (s_{d,CO_2} = 222 m)
- Water repellent
- Certified acc. to EN 1504-2, DIN V 18026

MC-Color

Proof vision

Transparent, hydrophobic polyurethane-polymer combination with integrated Easy-to-Clean technology

- Two-component
- Concrete protection for weather-exposed exterior surfaces
- Permanent graffiti protection for concrete
- Open to water vapour diffusion (s_{d,H_2O} = 1.2 m)
- Carbonation-resistant (s_{d,CO_2} = 645 m)
- Water repellent
- Certified acc. to EN 1504-2, DIN V 18026, TL/TP AGS, ZTV-ING, Part 5 Tunnelling

MC-Color

Flair pure

Pigmented copolymer dispersion with good weathering resistance and low soiling tendency

- Ready to use
- Concrete protection for weather-exposed exterior surfaces
- Open to water vapour diffusion (s_{d,H_2O} = 0.2 m)
- Carbonation-resistant (s_{d,CO_2} = 270 m)
- Water repellent
- Certified acc. to EN 1504-2, DIN V 18026

MC-Color

Flair pro

Pigmented copolymer dispersion based on "Core-Shell" technology with excellent colour stability and extremely low soiling tendency

- Ready to use
- Concrete protection for weather-exposed exterior surfaces
- Open to water vapour diffusion (s_{d,H_2O} = 0.2 m)
- Carbonation-resistant (s_{d,CO_2} = 316 m)
- Water repellent
- Certified acc. to EN 1504-2, DIN V 18026

MC-Color

Flair vision

Pigmented, hydrophobic polyurethane-polymer combination with exceptional colour stability and integrated Easy-to-Clean technology

- Two-component
- Concrete protection for weather-exposed exterior surfaces
- Permanent graffiti protection for concrete
- Open to water vapour diffusion (s_{d,H_2O} = 0.8 m)
- Carbonation-resistant (s_{d,CO_2} = 677 m)
- Water repellent
- Certified acc. to EN 1504-2, DIN V 18026

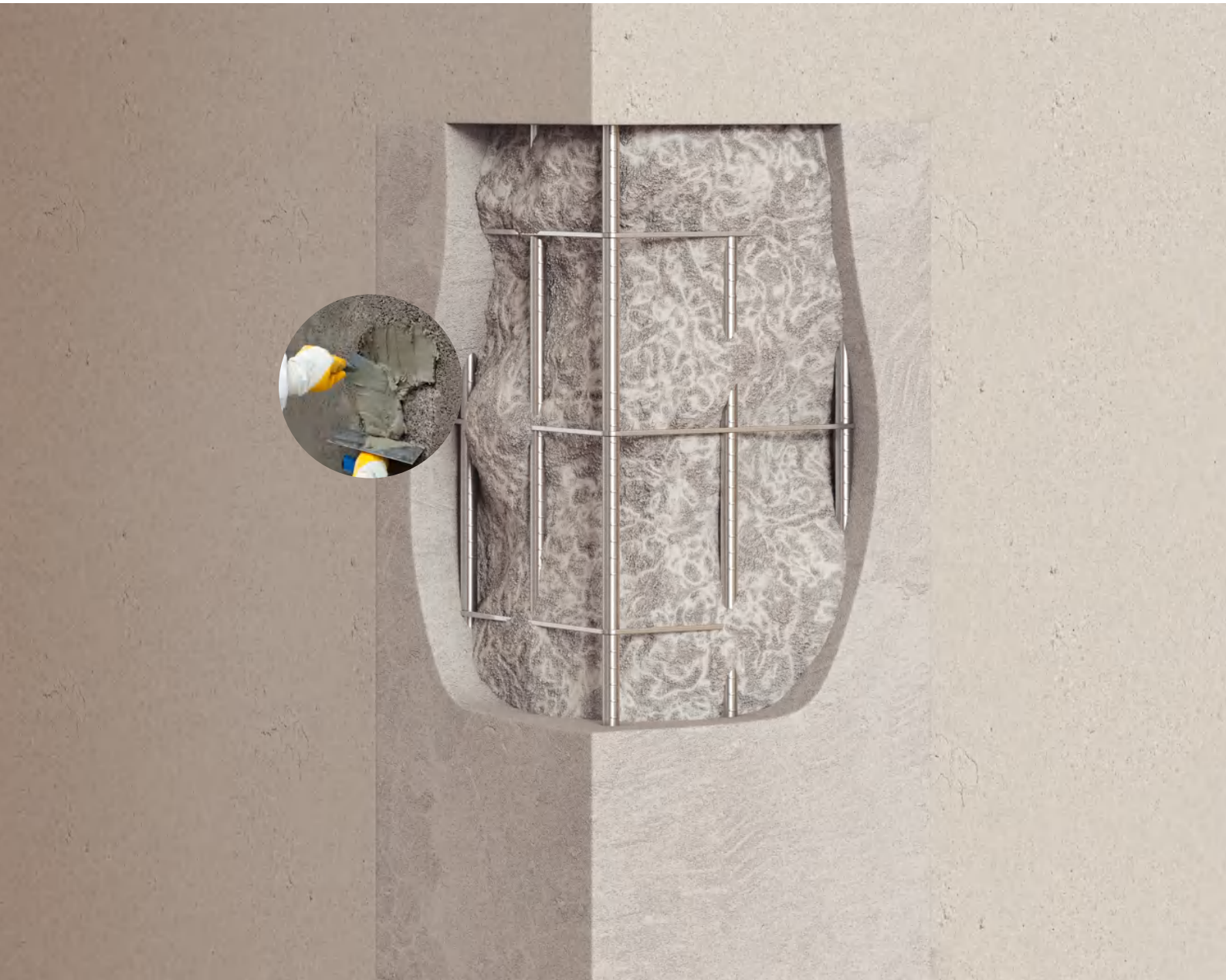
Nafufill

The all-round problem solver - especially in hot weather conditions

When repairing concrete components, fire protection requirements can often play as big a role as structural effectiveness. While conventional concrete replacement systems soon reach the limits of their suitability, Nafufill enables such specifications to be met with ease.

With this concrete replacement system you can verifiably fulfill all the concrete-related technologies requirements pertaining to corrosion protection, to bonding and fire protection of the reinforcement, in engineering, industrial, tunneling, civil and residential constructions.

3 IN 1 SPECIAL SOLUTION
POLYMERIC MORTAR + ANTICORROSIVE PROTECTION + ADHESIVE BRIDGE



Nafufill

KM 106 AE

Fine filler for concrete cosmetics

Product properties

- Polymer modified
- Can be applied up to 6.0mm thickness in single application
- Suitable for overhead application
- Sprayable with suitable machine
- Ready to use, just mix with water

Areas of application

- For full surface repairs on concrete and exposed concrete
- For fine filling and repairs on precast concrete components

Characteristics

Processing Time
Approx. 30 minutes

Application Thickness
6mm

Consumption
1.45 Kg/m^2

Per mm layer thickness

Flexural Strength
after 1 day
1.5 N/mm^2
after 3 days
3.2 N/mm^2
after 28 days
6.2 N/mm^2
at 23 °C and 50 % relative humidity

Compressive Strength
after 1 day
2 N/mm^2
after 3 days
10.8 N/mm^2
after 28 days
23.0 N/mm^2
at 23 °C and 50 % relative humidity

Adhesive Tensile Strength
after 3 days 0.8 N/mm^2
after 28 days 1.1 N/mm^2
added water 6.5-7.5 liter
per 25kg bag.

Form of delivery

25 kg bags

Nafufill

KM 250 AE

Fiber reinforced PCC-concrete repair mortar

Product properties

- High carbonation resistance
- Resistance to de-icing salts and chlorydes
- One component
- Shrinkage controlled mortar
- Hand and spray application

Areas of application

- Concrete replacement for solid construction and repair of water structures, partia and wide area applications
- Concrete replacement for reinforced concrete load baring structures

Characteristics

Maximum Particle Size
2 mm

Wet Density
2400 kg/m^3

Workability Time
30 minutes (at +25 °C)

Adhesion to concrete
N/mm^2 >1.5

Compressive strength
N/mm^2 BS EN 6319-2:1983
~ 24 , 1 Day
~ 50 , 7 Days
~ 60 , 28 Days

Flexural Strength
N/mm^2 >10 BS 6319-3:1990

Layer Thickness
Min. layer thickness
6 mm
per work step
Max. layer thickness
25 mm
per work step
Max. total thickness
60 mm

Form of delivery

25 kg bags

Nafufill

KM 420 AE

Flowable non-shrink micro concrete

Product properties

- Single-component
- Ready-to-use, requires only the addition of specified amount of water
- High flowable mix with the use of minimum water
- High initial and final strengths
- Shrinkage controlled, with high early strength
- Excellent bond to all concrete substrates
- Flowable with no risk of honeycombs or segragation
- High compressive strength with low permeability
- Resistant against atmospheric gas, frost and thaw cycles
- Excellent resistance to chloride and chemical attack
- Low alcaline, salts and chloride free product

Areas of application

- Repair of structural concrete section where it is difficult to cast mortar
- Structural elements repair and defected concrete bodies
- Casting over steel jackets of columns for adjusted loads
- Damaged reinforced concrete repair
- Ideal for filling larger voids repairs and concrete pavements repairs

Characteristics

Density
2.2 kg/L

Compressive Strength
@ 7 days 45
@ 28 days 60

Flexural Strength
N/mm^2 45 , 28 days BS 6319-3

Form of delivery

25 kg bags

MC-Rep

MC-Rep

MC-Rep 3000

Fairing coat solvent free epoxy mortar

Product properties

- Non-shirnk, solvent free product
- Pre-measured proportions, easy to mix and apply
- Cured surface exhibits high strength, abrasion and chemical resistant layer
- High adhesion to concrete substrates
- Can be cured under damp conditions
- Low viscosity, non-sagging, can be easily applied to vertical surfaces

Areas of application

- Crack repairs in structural components, like bridges, columns, beams, foundations, walls and floor slabs.
- Filling pinholes prior to overcoating
- General re-profiling over large areas

Characteristics

Wet density
1.6–1.65 kg/m^3

Over coating time

After 24 hours

Pot Life

minutes 60 at 35 °C

Drying Time

minutes 240 at 35 °C

Time until resistance

minutes 240 at 35 °C

Compressive Strength

N/mm^2 65 at 7 Days

Flexural Strength

N/mm^2 30

* Every 1 m2 will consume between 1.6 to 1.65 kg of MC-REP 3000 at 1 mm thickness using a trowel on a smooth surface.

Form of delivery

5 kg pack

MC-Rep

MC-Rep 3000 Eco

High build epoxy resin for filling blow holes and surface imperfections

Product properties

- Non-shirnk, solvent free product
- Pre-measured proportions, easy to mix and apply
- Cured surface exhibits high strength, abrasion and chemical resistant layer
- High adhesion to concrete substrates
- Can be cured under damp conditions
- Low viscosity, non-sagging, can be easily applied to vertical surfaces

Areas of application

- Crack repairs in structural components, like bridges, columns, beams, foundations, walls and floor slabs.
- Filling pinholes prior to overcoating
- General re-profiling over large areas

Characteristics

Density

1.6–1.7 kg/m^3

Over coating time

6-12 hours (at 40 °C)

Pot Life

40 minutes (at 40 °C)

Compressive Strength

≥ 50 N/mm^2

* Material has to be free of contamination prior to recoating.

Form of delivery

5 kg can

MC-DUR

Floor coatings

The requirements placed on floors are as varied as their environments. Whether in industrial facilities, car parks, retail sestablishments or high-rise structures, coatingsystems from MC-Bauchemie offers durable protection for every kind of functional surface.

This is how it works

Primers

With primers from MC-Bauchemie, you can be sure of rigid cohesion between substrate and coating or reaction resin mortar.

Mineral leveling compound

With our mineral leveling comounds, industrial areas as well as driveways and uneven floors can be repaired quickly, sustainably and safely.

Coatings

MC-Bauchemie coatings are your ideal choice for effectively protecting floor against mechanical wear, chemical attack and thermal stressing.

Category	Product	Description
Primer	MC-DUR 1150 VK MC-DUR 1200 VK	Low -viscosity highly fillable, transparent epoxy resin
Mineral leveling compound	MC-DUR SL	Self-leveling epoxy floor topping
Coatings	MC-DUR 1150 MC-DUR 1200 MC-DUR 2500 MC-DUR ES 1500 MC-DUR 2150/UVB/MB	Resistant epoxy resin coating Highly chemical resistant polyurethane-cement hybrid screed Epoxy screed PU Aromatic coating / PU Alephatic coating / PU membrane

Challenges and applications: High speed coating system for industrial floor

Conventional floor coatings based on polyurethane and epoxy resin compounds can only be applied at temperatures between 8°C and 30°C. At cooler temperatures and in damp or humid conditions, they are prone to undesirable secondary reactions leading to lack of adhesion and the appearance of bubbles, blisters, pitting and pores, with long curing times also a problem. MC-Floor TopSpeed is a high-performance product system that allows fast and reliable coating work to be carried out even under critical ambient conditions – including at temperature extremes of 2°C and 35°C and in the presence of high levels of moisture. Entire industrial floors can be completely upgraded in just a few hours, with full loadability returning after just 48 hours. Uniquely, with MC-Floor TopSpeed the effective working period can be extended virtually right across the year in many countries.

Botament

D 1

Rapid multi-functional bonding primer

Product properties

- Rapidly drying
- Can be diluted 1:2
- For absorbent and non-absorbent substrates
- Good surface grip
- Can be rolled or painted on
- For interior and exterior areas
- Highly productive
- Solvent-free

Areas of application

- Glazed and unglazed tile coverings
- Natural and artificial stone slabs
- Firmly bonded, water-insoluble paints
- Thin-layered carpet adhesive
- Highly compacted concrete
- Impregnated OSB-boards and timber floor boards
- Mastic asphalt screeds

Characteristics

Density
1.36 kg/dm³

Consumption Per Coat
50-100 g/m²

Application and Substrate Temperature
+5 °C to +30 °C

Compressive Strength
≥ 50 N/mm²

Form of delivery

1 kg bucket

5 kg bucket

10 kg bucket

Botament

D 11

Deep action primer

Product properties

- Can be diluted 1:1
- Rapidly drying
- Improves adhesion
- Can be rolled or painted on
- Reduces absorbency
- Binds dust
- Solvent-free

Areas of application

- Crack repairs in structural components, like bridges, columns, beams, foundations, walls and floor slabs.
- Filling pinholes prior to overcoating
- General re-profiling over large areas

Characteristics

Wet Density
1.6–1.7 kg/m³

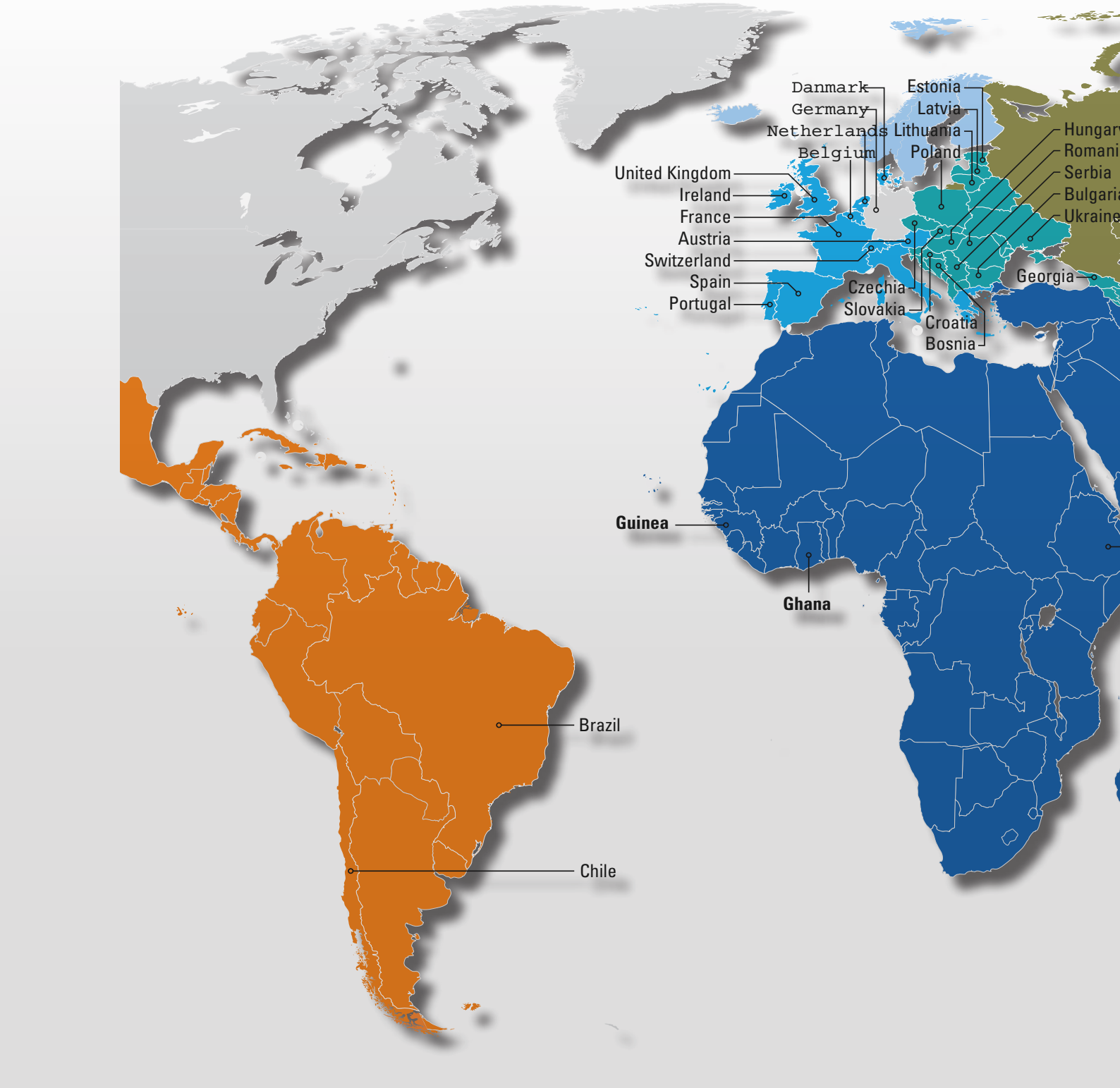
Overcoating time
6-12 hours (at 40 °C)

Pot Life
40 minutes (at 40 °C)

Compressive Strength
≥ 50 N/mm²

Form of delivery
5 kg can

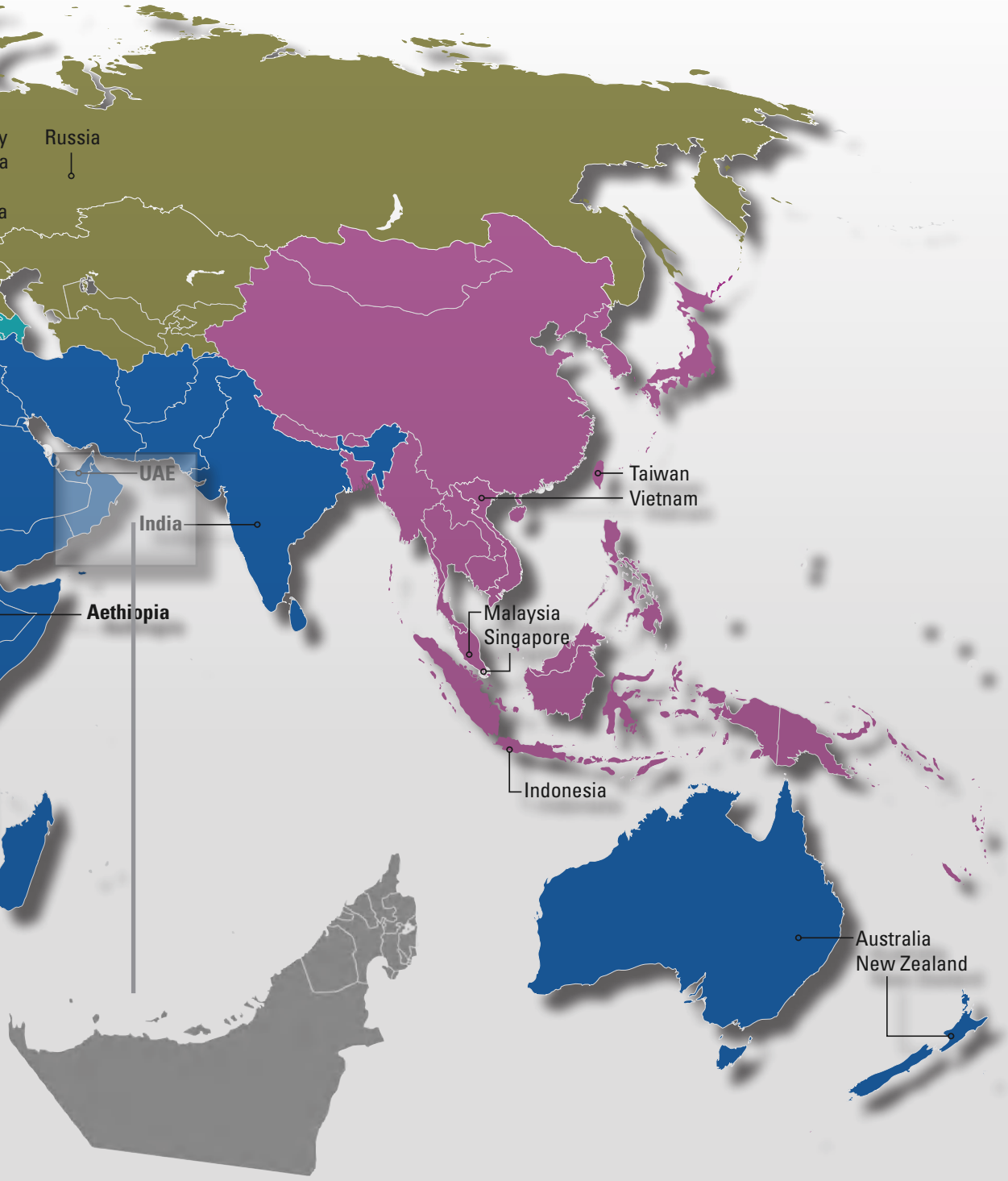
Assuring Building In More Than 40 Countries Worldwide



-

REGIONAL BRANCH
MC-Bauchemie Middle East L.L.C.
Jebel Ali Industrial 1, Dubai
United Arab Emirates
Phone: +971 4 880 4429
Fax: +971 4 880 4439
info.uae@mc-bauchemie.com
www.mc-bauchemie.com

ABU DHABI BRANCH
MC-Bauchemie Middle East L.L.C.
10th Floor , C1 Tower, Office 1013,
Abu Dhabi ,United Arab Emirates
Phone: +971 2 406 9600
Fax: +971 4 880 4439
info.uae@mc-bauchemie.com
www.mc-bauchemie.com



DUBAI BRANCH
MC-Bauchemie Middle East L.L.C.
Jebel Ali Industrial 1, Dubai
United Arab Emirates
Phone: +971 4 880 4429
Fax: +971 4 880 4439
info.uae@mc-bauchemie.com
www.mc-bauchemie.com

QATAR TRADER
Heypex Trading Company W.L.L.
Tel. No.: +974 4444 0761/0762
Fax No.: +974 4444 0763
info@heypex.com.qa
Website: www.heypex.com.qa

Headquarter
MC-Bauchemie Müller GmbH & Co. KG
Infrastructure, Industry and Buildings
Am Kruppwald 1-8
46238 Bottrop
Germany

Regional Office
MC-Bauchemie Middle East L.L.C.
Jebel Ali Industrial 1, Dubai
United Arab Emirates
Phone: +971 4 880 4429
Fax: +971 4 880 4439
info.uae@mc-bauchemie.com
www.mc-bauchemie.com

Get straight to
the MC website:
www.mc-bauchemie.ae

BE SURE. BUILD SURE.