MORCEM® DRY F

Two-component flexible waterproofing mortar

CE EN 1504-2

GlobalEPD
A VERIFIED ENVIRONMENTAL DECLARATION

DESCRIPTION

Two component flexible waterproofing mortar.

TECHNICAL CARACTERISTICS

Two-component product based on hydraulic binders and synthetic resins.

ADVANTAGES AND USES

- Permeable to water vapour.
- Frost and thaw resistant.
- Excellent adhesion.
- It does not affect the potability (subir a la línea de arriba) of water.
- Permanent flexibility.
- Resistant to sulphates in low concentrations and non-acid means.
- Waterproofing of tanks, ponds, swimming pools, fountains, basements, underground car parks, elevator pit, tunnels, etc.
- Interior waterproofing of drinking water tanks.
- Waterproofing and protection of concrete against carbonation, freeze-thaw cycles, chloride attack in public works, irrigation systems, sewage treatment plants, desalination plants, bridges...etc.
- Waterproofing of balconies and terraces (25-50 m2 maximum) If we find partition or expansion joints, we will treat them with the BANDTEC band and always reinforce the surface with MALLA DRY POOL.
- Waterproofing of exterior foundation walls.
- Repair and protection of surfaces exposed to the action of freezing and thawing: overhangs, balconies, roofs, terraces, cornices, etc.
- Waterproofing of surfaces susceptible to movements, with positive and negative hydrostatic pressures.
- High performance.
- MORCEM®DRY F meet the requirements according to the Real Decreto RD3/2023 which establishes the sanitary criteria for the quality of water for human consumption.

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SUITABLE SUBSTRATES

- The substrate must be sound (with a minimum traction resistance of 1N/mm2), healthy, clean, free of greases, oils, dust and any bad adhered pieces.
- Absorbent substrates will be previously moistened until they are saturated, avoiding waterlogging.
- Cracks and damaged concrete should be previously repaired with MORCEMREST RF 35.
- To waterproof terraces, swimming pools and balconies with old coatings, the following must be ensured:
  - The existent ceramic coating must be correctly adhered to the substrate (stable substrate).
  - The ceramic coating must be totally clean: Free of dust, dirt, greases, varnishes, waxes, oils, moulds, lime, etc.

NOTE: For this type of application, please consult the technical department beforehand.

APPLICATION PROCEDURE

Mixture of the mortar:

- Start mixing Component A powder manually or mechanically with 3/4 parts of Component B liquid. Subsequently add the remaining liquid component and mix again until a homogeneous mass is obtained.

Application:

- Moisten the surface without leaving any water excess. MORCEM DRY F is applied in two layers of 1 mm thickness each, using a paintbrush, a long hair roller or by projection.
- Apply a first layer following one direction and let it set one or two hours (at 20ºC). After this time, apply a second layer in the opposite direction (at 90º). As the setting time can vary depending on the environmental conditions, it must be taken into account that the purpose of this operation is to apply a second layer when the first layer cannot be damaged by the second one so that finally both act in a monolithic way. Never apply when the first coat is too dry, since we would get a two-layer scheme in which the adhesion and stability of the system could be compromised.
- To treat cracks with possible movements and in critical points, reinforce the coating with fibreglass mesh MALLA DRY POOL. Apply a first layer of MORCEM DRY F, stuff the MALLA DRY POOL, with the second MORCEMDRY F layer, let it dry and apply a third layer. Let the MALLA DRY POOL stuffed as sandwich type.
- Wait at least 2 days before tiling with the ceramic tiles.
- The final result can be done by smoothing with a trowel, or by trowelling with a sponge trowel, depending on the desired texture.
  - MORCEM® DRY F will be applied as uniform as possible to avoid any excess of material which may lead to cracks.
  - Wait for at least 2 days before filling with water
  - Wait for at least 2 days before applying a ceramic coating.

- In critical points it is recommended to assemble the coating with MALLA DRYPOOL or BANDTEC. Apply according to technical data sheet of the products.

Curing:

- Protect from wind, frost and direct sunlight during hardening. To avoid excessive drying, it is convenient to cover the surface with wet burlap or plastic during its curing.

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RECOMMENDATIONS

- Do not apply below 5ºC nor above 30ºC.
- Do not apply the product with risk of frost, rain, strong winds, direct sunlight or, in that case, protect it properly.
- To ensure the waterproofing feature, the minimum thickness must be 2 mm.
- In critical points of the element to be waterproofed, it is recommended to assemble the sandwich-type coating between the two layers using a strip of MALLA DRYPOOL, it should be placed using overlaps with a minimum width of 5 cm and as carefully as possible avoiding pockets or folds in the MALLA DRYPOOL; or reinforcing with BANDTEC.
- Please consult technical data sheet of both the products before applying.
- The junction between wall-wall, wall-screed, wall-ceiling is recommended by applying MORCEMREST RF 35 in the form of a 5 x 5 cm half round.
- Consult the Technical Department for any application not specified in this Technical Data Sheet.
- For all information regarding safety in handling, transport, storage and use of the product check the updated version of the product Safety Data Sheet.
- Do not add cement, sand nor any other substances that may affect the properties of the material.
- The supplies and tools will be cleaned with water immediately after use, to avoid hardening of the material, which will have to be removed by mechanical means.
- Wash the waterproofed surface with clean water after 48 hours of application.
- Repeat the operation at least twice before filling the deposit.

PACKAGING AND STORAGE

MORCEM DRY F is presented in bags of 20 kg of powder, and containers of 7.8 kg of liquid.

Storage up to 1 year in its original closed container, sheltered from weather conditions and humidity.

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TECHNICAL DATA

(Statistical data obtained under standard conditions)

Aspect component A	Grey Powder
Aspect component B	White Liquid
Density of paste	Aprox. 1,7 gr/cm^3
Layer thickness	1 mm.
Thickness applicable	2 -3 mm
Adherence(Flexible system without Traffic)	> 0,8 N/mm^2
Adherence on humid concrete	> 1,5 N/mm^2
Resistance to positive and negative hydrostatic pressure	15 bar
Permeability to water vapor	Class 1 SD < 5 m (Permeable to water vapor)
CO2 permeability	Sd > 50 m (Raincoat to CO2)
Resistance to cracks	Class A5 (-10ºC) Class A5 (+20ºC) Class B2 (-10ºC)
REsistance to sulphates (50 gr/l MgSO4) NFP 18.837	< 850 µm

	R4 REQUIREMENTS	PRODUCT DATA
Diffusion of chlorides EN 13396	Pattern 0,16	Result 0,06

Crack bridging capability	Up to 2 mm (minimum thickness of 2 mm; always for temperatures above -10 ° C) Note: it is recommended to reinforce with a mesh for the crack covering/bridging.
Capillary absorption	< 0,1 kg/m^2 x h0.5
Elongation to breaking	Approx. 45%
Life time of the mixture	35-45 minutes
Performance	1,5 Kg/m^2/mm espesor

NOTE: Grupo Puma has a Water Potability Certificate in accordance with RD3/2023.

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EN 14891 Standard: Cementitious Membranes		Classification: CM02P
Test	**Acceptance and rejection limits**	**Values obtained**
Permeability to pressurized water	No penetration	Positive pressure: 15 atm Negative pressure: 15 atm
Crack bridging capacity at + 23ºC according to EN: 14891 – A.8.2 (mm)	> 0,75	> 0,90
Crack bridging capacity at - 20ºC according to EN: 14891 – A.8.2 (mm)	> 0,75	> 0,75
Initial adherence according to EN: 14891 - A 6.2.	> 0,5	> 0,5
Adhesion after immersion in water according to EN:14891 – A 6.3. (N/mm^2)	> 0,5	> 0,5
Adhesion after heat action according to EN: 14891– A 6.5. (N/mm^2)	> 0,5	> 0,5
Adhesion after F/T cycles according to EN: 14891 - A 6.6. (N/mm^2)	> 0,5	> 0,5
Adhesion after immersion in basic water according to EN: 14891 – A 6.9. (N/mm^2)	> 0,5	> 0,5
Durability adhesion in chlorinated water	> 0,5	> 0,5

Adhesion on plasterboard substrate after 28 days	Cohesive breaking of plasterboard.
When waterproofing the plasterboard support, include the MALLA DRYPOOL as reinforcement between layers	sandwich type

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CE MARK

CE

0370

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16
Nº: 210108

0370-CPR-2578
0370-CPR-4693

EN-1504-2
MORCEMDRY F

Two-component, flexible, coating mortar for protecting surfaces and waterproofing concrete with a minimum layer thickness of 2 mm.

CO_2	Sd>50m
Water vapour permeability	Class 1
Capilary absorption and water permeability	$w<0.1kg/m^2 \times h^{0.5}$
Thermal compatibility	Pass
Crack-bridging capacity	Class 5
Adhesive strength by tensile test	≥ 1.5 N/mm^2
Adhesion to humid concrete	≥ 1.5 N/mm^2

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

Mortar made with aggregates close to the production centres, reducing greenhouse gas emissions associated with its transport and made in production centres with Environmental Management systems certified in accordance with the ISO 14001 standard, a firm commitment to sustainability and respect for the environment.

Mortar with type III ecological label (the most demanding) Environmental Product Declaration externally verified by AENOR.

LEGAL DISCLAIMER

The instructions for use are given according to our tests and knowledge and do not imply any commitment by GRUPO PUMA nor free the consumer from the examination and verification of the products for their correct use. Claims must be accompanied by the original packaging to allow a proper traceability.

GRUPO PUMA is not responsible, in any case, for the application of its products or constructive solutions carried out by the application company or other parties involved in the process and / or execution of the work, limiting the responsibility of GRUPO PUMA exclusively to the damages directly attributable to the supplied products, individually or integrated in systems, due to failures in their manufacturing process.

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The values obtained by GRUPO PUMAS's products or its constructive solutions that, as the case may be, are determined by the EN standards or any other regulation that applies to it in each case refers exclusively

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to the conditions specifically stipulated in said regulation and that are referred to, among others, to certain characteristics of the support, humidity and temperature conditions, etc. without being them required in the tests obtained under different conditions, all in accordance with the relevant regulation.

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