CONCRETE REPAIR



MORCEM DRY FIX

DESCRIPTION

Single-component waterproof membrane reinforced with fibres, fast-setting and drying, with high flexibility and extended open time, for waterproofing and tile adhesion on traditional substrates.

TECHNICAL CARACTERISTICS ADVANTAGES AND

USES

Product based on high resistance hydraulic binders, selected aggregates, synthetic resins and special fibres.

- Permeable to water vapour. Permeability to liquid water.
- Waterproofing and protection on concrete structures.
- Easy to apply with a trowel, roller, or paint brush.
- Waterproof to positive and negative pressure 9atm.
- Excellent adhesion on all types of substrates, provided they are solid and perfectly clean: Ceramic tiles, concrete, cement mortar, screeds, stone, and brick.
- Waterproofing of balconies, terraces, bathrooms, showers, and swimming pools under tiles in accordance with EN 14891. MORCEMDRY FIX meets the minimum requirements for class CMO2P of UNE EN 14891:2012 "Waterproofing membranes for use beneath ceramic tiles".
- CM02P: Certified crack-bridging ability even at low temperatures (-20°C).
- Waterproofing of balconies and terraces (maximum 80-90 m²). If partition or expansion joints are present every 25-30 m², they must be treated with BANDTEC tape. The entire surface should always be reinforced with MALLA DRY POOL mesh.
- Waterproofing of concrete structures according to EN 1504-2. MORCEMDRY FIX complies with the
 principles defined in EN 1504-9 ("Products and systems for the protection and repair of concrete
 structures. Definitions, requirements, quality control, and conformity assessment. General principles for
 the use of products and systems") and meets the requirements of EN 1504-2, as a render (C) under
 principles PI, MC, and IR ("Surface protection systems for concrete").
- Waterproofing and adhesion in a single product. MORCEMDRY FIX is a high-performance, fast-setting, and highly deformable adhesive (Class C2FE S2) for installing ceramic tiles, including large formats and thin sheets.

SUITABLE SUBSTRATES

- Direct application on cement-based substrates, concrete, and old tiles.
- Existing ceramic, mosaic, or gresite floors and wall coverings must be well adhered to the substrate.
- Substrates must be fully cured (7 days per cm of thickness), have sufficient strength, and be free from dust, dirt, loose materials, release agents, organic products, and efflorescence.
- The substrate should have a suitable flatness.
- Depending on the condition of the substrate, pre-treatment may be necessary using mechanical methods such as high-pressure washing or sandblasting to remove all old renders and ensure a sound, clean surface for proper adhesion of the waterproofing layer.
- In applications with high ambient temperatures, absorbent substrates, and porous surfaces will be previously moisten until saturation, avoiding puddles.
- Prior to waterproofing, it is recommended to create cove fillets where the wall meets the floor slab, using products from the MORCEMREST range.
- Expansion joints, pipe penetrations, openings, and installations must be sealed with appropriate products from the PUMALASTIC range.
- Small honeycombs, cracks, or irregularities in concrete can be repaired using suitable products from the MORCEMREST range or RESINA INYECCIÓN BV-type resins.



APPLICATION PROCEDURE

Mixing the mortar:

Mix the product with the recommended amount of water, depending on the required consistency (fluid consistency: 25-30%; thixotropic consistency: 20-25%), total mixing time: 3 minutes using a low-speed electric mixer (~500 rpm), until a homogeneous, lump-free paste is achieved. Let the mixture rest for 5 minutes, then remix before application.

Preliminary steps before applying MORCEMDRY FIX:

- Treat critical areas with BANDTEC tape, including wall-floor junctions, construction joints (subject to limited movement), and other high-risk zones such as corners and drains. It is recommended to apply BANDTEC at all critical points, such as wall-wall and wall-floor intersections. BANDTEC is a self-adhesive waterproofing tape that can be applied directly on a clean, dust-free surface with moisture levels below 4%. If moisture exceeds this, apply IMPLAREST EPW primer first (refer to BANDTEC technical sheet).
- Once BANDTEC is in place, apply MORCEMDRY FIX.
- Structural joints with significant movement must be sealed using ELASTIC MEMBRANE and MORCEMREST EPOXI T (sprinkle aggregate to ensure adhesion of MORCEMDRY FIX).

Application of the MORCEMDRY FIX Cementitious Membrane:

- Apply with brush, roller, or trowel in two layers with a minimum total thickness of 2 mm. For existing
 ceramic substrates or cracked surfaces, embed MALLA DRY POOL (alkali-resistant fibreglass mesh) into
 the first wet layer, ensuring 5 cm overlaps.
- Moisten the surface avoiding any water excess. MORCEM DRY FIX must be applied in two layers, each 1
 mm thick, using a paint brush, short-haired roller, or by projection.
- Apply a first layer in one direction and let it dry. Apply a second layer in the opposite direction after this
 time. As the setting time can vary depending on environmental conditions, it should be noted that the
 purpose of this operation is to apply a second layer without mixing with the first one, so that both ultimately
 act monolithically. Under no circumstance apply when the first layer is too dry, as this would result in a twolayer scheme where the adhesion and stability of the whole could be damaged.
- For ceramic or cracked substrates apply a reinforcing glass-fibre and anti-alkali mesh MALLA DRY POOL
 Embed MALLA DRY POOL reinforcement mesh into the first wet layer of MORCEMDRY FIX. Allow the
 first layer to dry, then apply the second layer in the opposite direction. Ensure MALLA DRY POOL is
 completely embedded, forming a "sandwich" structure.
- For small balconies (up to 25 m²) and sound concrete substrates (without cracks):
 - MORCEMDRY FIX can be applied without reinforcement mesh, maintaining the minimum recommended thickness.
 - The final finish can be conducted with a normal trowel or a sponge square plastering trowel, depending on the texture desired.
 - The MORCEM DRY FIX should be applied as uniformly as possible to avoid an excess of material that could cause cracks in it.
 - o Wait at least 4 hours before performing a water-tightness test.
 - Wait at least 3 hours before tiling (at 23°C). Tiles can be bonded to the second layer using a C2 S1 adhesive. C2 S1 adhesive should be suitable for the tiling (refer to the adhesive's technical sheet), choose the adhesive according to the tiles that are going to be placed and the area. Respect construction joints (expansion, contraction, partitioning, perimeter corner joints) and placement between tiles (minimum 2 mm inside and 5 mm outside).



RECOMMENDATIONS

- Do not apply the product under 5°C nor above 30°C temperature.
- Do not apply if there is a risk of frost, rain, intense winds, or direct sunlight. Protect the surface from rain for 12-24 hours after application.
- The hardening process may slow down in the presence of high humidity, such as in poorly ventilated rooms or basements.
- If the expected operating temperature is -5°C or lower, it is recommended to reinforce MORCEMDRY FIX with an alkali-resistant fibreglass mesh.
- The product is neither walkable nor visitable.
- Remove any spare or bad adhered pieces on ceramic floors and fill the gaps with mortar one day before
 the actual application of the product. Make sure the old ceramic is free from greases or waxes, if
 necessary, mill the surface until the old pottery loses its shine. In case of doubt, refer to the Technical
 Department and conduct a preliminary test to establish the suitability of the solution provided.
- It is recommended to leave a free perimeter expansion joint between the flooring and the wall or pillar, hidden by the skirting board, of approximately 8 mm. These joints must be filled with a deformable material from the PUMALASTIC range and, for outdoor applications, combined with BANDTEC (refer to the BANDTEC technical datasheet). Do not add cement, sand, or other substances that may affect the properties of the material.
- Consult with the Technical Department for any application not specified in this Technical Data Sheet. For any information regarding safety in handling, transportation, storage, and use of the product, please refer to the label and the updated version of the product's Safety Data Sheet.

PACKAGING AND STORAGE

MORCEMDRY FIX is provided in 20 Kg powder bags.

9 months storage in its closed original packaging, indoors and away from humidity.

TECHNICAL DATA

Statistical results obtained under standard conditions of +23°C temperature and 50% relative humidity. (At higher temperatures, curing times are shortened, while at lower temperatures, they are extended.)

Aspect	GREY powder
Mixing water fluid consistency	25 - 30%
Mixing water (thixotropic consistency	20 - 25%
Paste density	~ 1,50 kg/l
Granulometry	350 μ
Lifetime of the paste	> 45 min
Grouting time	> 12 hours
Walkability after grouting	3 hours
Performance	1.5 kg/m ² and thickness mm



Performance according to EN 14891: Cementitious Membranes

		Classification: CM02P
Test	Specification	Values
Impermeability to water under pressure positive and negative	No penetration	9 atm
Crack-bridging capacity at + 23°C according to EN: 14891 – A.8.2 (mm)	>0,75	>1,4
Crack-bridging capacity at -5°C according to EN: 14891 – A.8.2 (mm)	>0,75	>1,0
Crack-bridging capacity at - 20°C according to EN: 14891 – A.8.2 (mm)	>0,75	>0,8*
Initial adhesion according to EN: 14891 – A 6.2. (N/mm²)	>0,5	>0,5
Adhesion after immersion in water according to EN: 14891 – A 6.3. (N/mm²)	>0,5	>0,5
Adhesion after heat action according to EN: 14891 – A 6.5. (N/mm²)	>0,5	>0,5
Adhesion after F / T cycles according to EN: 14891 – A6.6(N/mm²)	>0,5	>0,5
Adhesion after immersion in water according to EN:14891 – A 6.9. (N/mm²)	>0,5	>0,5
Adhesion durability in chlorinated water	>0,5	>0,5
Note: For use as a waterproofing membrane according to EN:14891 , it can be mixed with 25-30% water, as required.		

^{*}With DRYPOOL reinforcement mesh

Performance according to EN 1504-2: Surface protection for concrete.

CO permeability Sd >50m	EN 1062-6
Water vapour permeability Class 1	ISO 7783-1 ISO 7783-2
Capillary absorption and water permeability W 0.1kg/mh	EN 1062-3
Adhesive strength by tensile test > 1.5 N/mm	EN 1542

Performance according to UNE-EN12004: 2008+A1:2012

Adjustability time	Aprox. 30 min. (According to environmental conditions)
Initial adhesion (at 6 hours)	≥ 0,5 N/mm ²
Initial adhesion	≥ 1 N/mm²
Adhesion after immersion in water	≥ 1 N/mm²
Adhesion after heat ageing	≥ 1 N/mm²
Adhesion after freeze / thaw cycles	≥ 1 N/mm²
Classification according to UNE EN 12004:2008+A1:2012	C2FE
Classification according to UNE EN 12004:2008+A1:2012	\$2



CE MARK



GRUPO PUMA ESPAÑA Avda. Agrupación Córdoba, 17, 14014, Córdoba 25 No. 230048

UNE-EN-14891 MORCEMDRY FIX

Single-component waterproofing membrane, fibre-reinforced, fast-setting and quick-drying, dust-free, with high flexibility.

Initial bond strength in traction	≥0.5 N/mm ²
Tightness	No penetration
Resistance against cracks	≥ 0.75 mm
Durability of initial adhesion in traction against the weather conditions / thermal ageing	≥0.5 N/mm²
Durability of initial adhesion in traction against the action of water / humidity	≥0.5 N/mm²
Durability of initial adhesion in traction against lime water	≥0.5 N/mm ²
Durability of initial adhesion in traction against frost and freeze / thaw cycles	≥0.5 N/mm²



CONCRETE REPAIR

MORCEM DRY FIX



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GRUPO PUMA SL

Avd. Agrupación Córdoba, Núm.17 14014 (Córdoba)

MORCEMDRY FIX Nº: 230048 UNE-EN 12004:2008+A1:2012

Fast-setting and rapid-drying, dust-free cementitious adhesive with high flexibility and extended open time, designed for tile adhesion on traditional substrates.

Fire reaction	Class E
Adherence:	
Early tensile adhesion:	≥0.5 N/mm²
Initial tensile adhesion:	≥1 N/mm²
Durability:	
Tensile adhesion after immersion in water:	≥1 N/mm²
Tensile adhesion after thermal ageing:	≥1 N/mm²
Tensile adhesion after melt/freeze cycles:	≥1 N/mm²
Dangerous substances:	See Safety Data Sheet



GRUPO PUMA ESPAÑA Avda Agrupación Córdoba No. 17 14014 Córdoba No. 230048

EN-1504-2 MORCEMDRY FIX

Single-component flexible surface render mortar for waterproofing concrete with a minimum layer thickness of 2 mm.

CO ₂ permeability	Sd ≥50
Permeability to water vapour	Type 1
Capillary absorption and water permeability	$\leq 0.1 \text{kg/m}^2 \text{h}^{0.5}$
Adhesive strength by tensile test	≥1.5 N/mm²

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.

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supplied products, individually or integrated in systems, due to failures in their manufacturing process.

In any case, the drafter of the work project, the technical management or the person responsible for the work, or collaterally the application company or other parties involved in the process and / or execution of the work, must ensure the suitability of the products addressing the characteristics of them, as well as the conditions, support and possible pathologies of the work in question.

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