

PRB MONOCEL

READY-TO-USE UNDER-TILE SEALER



The **+**s of PRB MONOCEL

- +** Liquid sealer
- +** Single-layer SPEC (under-tile waterproofing system)
- +** Quick and easy to apply
- +** New and renovation work



ETAG022-1: ETA19/0788
NF EN14891: DMO1



PACKAGING

– Tubes of 5 and 20kg.

STORAGE LIFE: 24 months.

CONSUMPTION/USE

– Sealing: 2 x 800 g/m².
– under-tile waterproofing systems: 1 x 800 g/m² or 2 x 400 g/m².

COLOUR: Grey.

ACCESSORIES

– PRB ARMACEL mesh (0.80m x 50m).
– PRB NATTE CÉRAMIC EPI SPEC for plates and strips (1 x 15m).
– PRB BANDE RENFORCÉE SPEC (SEBS) strengthened tape (12cm x 10m).
– PRB BANDE NC tape - 20cm wide.



AREA OF USE

USES

- INTERIOR WALLS AND FLOORS.
- INTERIOR WALLS - WET ROOMS.
- INDOOR SWIMMING POOL SURROUNDS.
- Private and communal premises including floors with drains and gutters (EPI): P3 E2 / P3 E3, P2 E2 / P2 E3.
- Indoor intermediate concrete floors.
- Floors in communal kitchens (P4S & E3).
- New and renovation work in wet rooms (E2 & E3).
- For walls: EB + private use, EB + communal use and EC.
- French DTU Standard, Technical Specifications & Technical Notice for the relevant substrate.
- Professional regulations and trade rules in force.

SUITABLE SUBSTRATES

- **PRB MONOCEL** can be directly applied to:
 - Old bonded tiles (glued or sealed)* on floors and walls.
 - Plasterboard walls.
- **PRB MONOCEL** can be applied with a primer (**PRB ACCROSOL PLUS**, **PRB ACCROSOL AG** or **PRB ACCROSOL EXPRESS**) to:
 - Concrete.
 - Cement mortar renders and screeds.
 - Gypsum blocks (water-resistant or standard).
 - Water-resistant plasterboard.
 - Autoclaved aerated concrete.
 - Terracotta tile walls.
 - Anhydrite screeds with a moisture content of less than 0.5%.
 - Chipboard and Plywood panels
 - Rigid PVC tiles*.

– Old adherent and resistant epoxy or polyurethane paint*.
* After preparation (washing, scraping, scratching and/or sanding).

PROHIBITED SUBSTRATES

- Do not apply to:**
- Metals (please contact us beforehand). Not permitted.
 - terraces and balconies: use **PRB CEL CÉRAMIC** (or **PRB MEMBRANE D'ÉTANCHÉITÉ** for balconies).
 - swimming pools, ponds, foot baths, outdoor pool surrounds: use **PRB CEL CÉRAMIC liquid sealer**.

COMPATIBLE COATINGS & COVERINGS

Ceramic coverings or similar.
For walls, the weight of the covering or coating must not exceed 40 kg/m².
For floors, the tiles must be at least P3 grade and at least 8 mm thick.
For floors in P4/P4S kitchens, the tiles must be P4S certified and at least 12 mm thick.
Limitation of tile size according to substrate: see selection guides.

NB: For floors, the applicable standards and regulations regarding the slip resistance of the tiles in barefoot or shod areas must be respected.

COMPATIBLE ADHESIVE MORTARS

The choice of adhesive depends on the size of the tiles and their intended use:

APPLICATION CONDITIONS

- Between 5° C and 30° C.
- Do not apply to frozen, freezing, thawing, hot or damp substrates.
- When tiling, allow for an edging joint between the tiles and the vertical walls.

Uses	Compatible tiling products Tile surface area in cm ²		
	SA ≤ 3,600 cm ²	SA ≤ 3,600 cm ²	SA ≤ 10,000 cm ²
Interior walls	PRB COL FLEX PRB COL PRO PRB COL WHITE PRB COL SPID HP PRB COL MONOFLEX HP PRB COL DUO FLEX PRB COL & JOINT ÉPOXY		
Interior floors	SA ≤ 400 cm ² (P4/PS areas with drains or gutters)	SA ≤ 3,600 cm ²	SA ≤ 10,000 cm ²
P2 / P3 areas	PRB COL FLEX PRB COL PRO PRB COL WHITE PRB COL SPID HP PRB COL FLUID N PRB COL FLUID HPR		PRB COL MONOFLEX HP PRB COL DUO FLEX PRB COL TOP PRB COL & JOINT ÉPOXY
P4 / P4S areas	PRB COL FLUID N PRB COL FLUID HPR PRB COL TOP PRB COL & JOINT ÉPOXY		

TECHNICAL CHARACTERISTICS

INGREDIENTS

- Single-component water-based resin.
- Appearance: grey liquid.
- Density: 1.12 ± 0.03.
- Dry extract: 68 ± 2 %.

APPLICATION CHARACTERISTICS

- Number of coats for sealing: 2 x 800 g/m².
- Number of coats for under tile waterproofing systems: 1 x 800 g/m² or 2 x 400 g/m².
- Drying time for the 1st coat: minimum 2 hrs.
- Drying time for the 2nd coat: 4 to 24 hrs.
- Required thickness for sealing: 1 mm (dry film).
- Required thickness for under-tile waterproofing systems: 0.5 mm (dry film).
- Drying time before tiling: 4 to 24 hrs.
- Max. waiting time before covering: 28 days*.

* Must not be walked on without protection.

• Dilution: do not dilute.

PERFORMANCE WHEN HARDENED

PERFORMANCE WHEN HARDENED		Test method /ref/ Etag005/022
Resistance to water pressure	≥ 1.5 bar	EN 14891
Resistance to water back pressure	≥ 0.5 bar	NF P85-451
Adhesion to concrete, with or without reinforcement	≥ 0.5 Mpa	EN 14891
Adhesion of tiles to PRB MONOCEL	≥ 0.5 Mpa	EN 14891
Reaction to Fire classification	NPD	NF P92-507 EN 13501-1
Resistance to cracking (without reinforcement) - PRB MONOCEL at 23°C - PRB MONOCEL at -5°C	≥ 2 mm > 1 mm	EN 14891

NB: Laboratory values - for guidance only.

UTILISATION

SUBSTRATE PREPARATION

- Walls and partitions must already be erected.
- Substrates must comply with the Technical Notice/DTU 52.2. They must be suitable for the use of the premises and have:
 - A resistant, clean, sound, cohesive and dust-free surface, free from all traces of formwork removal oil, curing compounds, laitance and other powdery substances: these elements are detrimental to adhesion and must be completely removed.
 - A residual moisture content of less than 4.5% (0.5% for anhydrite screeds).
 - A surface cohesion of at least:
 - 1 MPa for concrete floors.
 - 0.5 MPa for mortar in P3 areas and on walls.
 - Good flatness: tolerance of 5 mm under a 2 m straight edge and 1 mm under a 20 cm straight edge.
 - If the surface is not flat/level, levelling can be carried out using:
 - a class P3/P4S PRB floor coating (min. 3 mm),
 - locally, using a PRB adhesive mortar: 48 hrs before sealing (3 to 8 hrs before with **PRB COL SPID HP** and **PRB COL TOP**).

NB: for sealed cement substrates, mechanical scouring should be carried out (to open the pores of the substrate).

Floor slope with a drain/gutter

- The required slope varies according to the purpose of the structure (DPM). In all cases, the slope must be at least 1 cm/m. To create the slope using a quick-drying adherent screed, we recommend using the following mortars and binders:
 - **PRB CHAPECEM N / HPR / TRADI**,
 - **PRB MANUCEM N / HPR / TRADI**,
 - **PRB PLANIPENTE**.

NB 1: the substrate must have a minimum slope of 1% for water run-off. It being understood that floors with a slope of less than 2% may cause puddles and water retention on the surface due to construction tolerances.

NB 2: in the case of P4S communal kitchens, if a slope of 0 is required for the main area, the covering must be bonded and grouted using **PRB COLLE ET JOINT ÉPOXY**, directly onto the **PRB MONOCEL** with a minimum slope of 1.5% around drains.

Appropriate maintenance measures must be taken to ensure that standing water is drained away to avoid the risk of slippery floors.

Drains or gutters

- Joints at drains should be made using a stainless steel "plate" with an overlap of 12cm, to be glued in place using **PRB MASS MS**. For mechanical fixings in P4S areas, refer to the manufacturer's instructions for the drain/channel to be installed.
- Drains and gutters must not be fitted without a plate.
- To join the **PRB MONOCEL** sealer to the drain, cut a "plate" out of **PRB NATTE CÉRAMIC EPI SPEC** to the same size as the drain or gutter + 5 cm around the edge to cover the concrete, then stick it to the stainless steel/concrete using **PRB MASS MS sealant**. The PRB sealer can then be applied.

Traversing pipes

- To limit the risk of infiltration at the base of pipes or ducts, concrete blocks or bases should be built to raise the sealer by 10 cm.

For walls: upstands and concrete blocks

- At the base of walls/partitions/raised floors, a sealed upstand of at least 7 to 10cm must be made using **PRB MONOCEL**.
- For rendering with a float finish on interior wall upstands, use **PRB IMPERFOND** (up to 20 mm) or a PRB rendering mortar (CS category III or IV).
- To create upstands and protrusions in communal wet rooms, use **PRB TP RÉPAR/PRB SCEL CALAGE** for thicknesses up to 100 mm.

Renovation work

- For interior applications, the substrate must be validated and prepared in accordance with the Technical Specifications: 3528 v3 for walls and 3529 v4 for floors.
- After appropriate cleaning, and depending on the situation, an adhesion test should be carried out, as defined by the project manager, to check that the cleaning is sufficient for the renovation.

Protecting walls and partitions

- **PRB MONOCEL** can be used to seal wall surfaces exposed to moisture, regardless of how intensively they are used, including in areas where high-pressure water jets are used.
- The minimum height to be sealed is specified in Table 1 of DTU 52.2, Part 1-1-1, in the Technical Notice for the substrate and in the DPM: it is defined according to the substrate and the amount of water the wall will be exposed to (e.g. protection of the full width and height of the partition).

PRIMING

To ensure even adhesion to all substrates, we recommend that you use the following fixative primers:

- **PRB ACCROSOL PLUS** or **PRB ACCROSOL AG**, then leave to dry for 3 to 12 hrs.
- **PRB ACCROSOL EXPRESS**, and leave to dry for approx. 30 mins to 1 hr, depending in the substrate and ambient conditions.

For metal substrates, we recommend:

- 1 coat of **PRB ACCROSOL TECHNIC** (with or without sand) + 1 coat of **PRB ACCROSOL EXPRESS**.
- Seal with a strip of **Natte Céramic** cut to size and bonded with **PRB MASS MS**.

Mixing

Before applying the sealer, mix the mixture at a low speed (300rpm).

APPLYING THE SEALER

Sealing floors and walls

- Liberally apply **PRB MONOCEL** in 2 coats with either:
 - a wool roller with fibres of 14 to 20 mm in criss-cross strokes,
 - a V6 mm serrated trowel, then smooth using a stainless steel float,
 - a float or spatula,
 - a wide brush for corners and details.
- 1st coat at 800 g/m² - min drying time: 1 to 2 hrs.
- 2nd coat at 800 g/m² - min drying time before tiling: 4 to 24 hrs. A regular thickness of 1 mm should be achieved once a dry film has formed.

- **Reinforcement is required at:** all corners, floor-wall joints, rebated edges and specific points. When applying the 1st coat, work in a 20cm strip of **PRB NATTE CÉRAMIC EPI SPEC** or **PRB BANDE RENFORCÉE SPEC**.

- Completely cover the strips with the 2nd coat of sealer. Sealed upstands must be 7 to 10 cm above the finished level.

Treating a single crack

Hairline cracks – cracks of 0.3 to 1 mm

- Reinforce with **PRB ARMACEL** mesh by embedding it into the 1st coat of **PRB MONOCEL** with a 10 cm overlap on either side of the crack. This should be done locally if there is only one crack and over the entire surface if there are several cracks.
- You can also bridge cracks and gaps with a 20cm strip of **PRB NATTE CÉRAMIC EPI SPEC**.

Cracks >1 mm and <2 mm

- Before treating cracks > 1 mm, a preliminary study of the stability of the substrate must be carried out.
- Saw a line through the crack and remove any dust, then fill with epoxy resin (**PRB ACCROSOL TECHNIC**) without sand.
- Alternatively, widen the crack into a V shape and fill with **PRB TP REPAR mortar**.
- Bond using **PRB MONOCEL** or a pre-cut 20 cm strip of **PRB NATTE CÉRAMIC EPI SPEC**, then apply the 1st coat of **PRB MONOCEL** and incorporate a strip of **PRBARMACEL** mesh. Repeat the process if there are several cracks.

Reinforcing the sealer with PRB ARMACEL

For floors, use **PRB ARMACEL** mesh to reinforce the sealer if the substrate has generalised hairline cracks

Waterproofing (SPEC - under tile waterproofing system)

- For SPEC waterproofing, use **PRB MONOCEL**:
 - in 1 coat of 800 g/m²,
 - in 2 coats of 400 g/m².
 - The minimum thickness required is 0.5 mm once a dry film has formed.
 - Strengthened SPEC reinforcements with **PRB SEBS resin** must be used, or a 20cm strip of **PRB NATTE CÉRAMIC EPI SPEC**.
 - The **PRB MONOCEL** under tile waterproofing system method must be used:
 - when waterproofing walls and partitions, with a minimum overlap of 10 cm on the floor (+ reinforcement in all corners),
 - over the whole floor and at the base of walls and partitions for wooden floors.

TILING

Bonded tiling

- Once the sealer has cured (dry film), use the PRB adhesive mortars listed above.
- Depending on the adhesive mortar used, the tiles can be laid with or without back buttering; tiles should be pressed firmly into the fresh grooves to ensure good adhesion and continuous contact with no cavities or voids.
- For floors and walls subject to water run-off, the tile design should not include any gaps.
- Leave space for an edging joint between the tiles and the vertical walls.
- When grouting, use the ready-to-use **PRB JOINTS** product suited to each use (see technical data sheets).
- For dividing and expansion joints: refer to the architect's detailed drawings.
- The provisions of the French DTU 52.2 and the Technical Specifications must be complied with.
- For bonding mosaics: use **PRB COL MONOFLEX HP** or **PRB COL & JOINT ÉPOXY** Always follow the manufacturer's instructions.
- Use a sealant for finishing: **PRB MASS SIL PLUS** or **PRB MASS MS**.

Grouted tiling on indoor floors

- Once the sealer is dry (after 24 hrs), the tiles can be laid and grouted in accordance with NF DTU 52.1.

- Tiles must always be separated from the sealer by means of a 150 g/m² non-woven fabric covered with a 150 micron polyethylene film (DTU 52.1).

Sanitary facilities - fixings

- Washbasins, bidets and toilets should be fixed to the wall, otherwise a base must be made at the bottom. In all cases, sanitary installations can only be installed after the sealer has been tiled.

Applying sealant after sealing

- Fixings must not compromise the integrity of the sealer. Use chemical cartridges suitable for the element to be sealed.

PRECAUTIONS FOR USE

- Do not apply in direct sunlight.
- Do not apply to frozen or thawing substrates or if there is a risk of freezing within 24 hrs.
- Do not dilute.
- When freshly applied, the product can be cleaned with water.
- Gloves are recommended.
- Please read the safety data sheet before use.
- Respect drying times before recoating or covering (dry product).
- Swimming pool surrounds: do not use in submerged areas including foot baths and concrete gutters to be tiled or painted; use **PRB CEL CERAMIC** (tiles) or **PRB POLYDIANE +** with a **PRB ISOPLAST 2301 S** finish (paint). **PRB MONOCEL** is suitable for use with stainless steel gutters with sealing plate (see diagrams).
- The sealer may take longer to dry in low temperatures and/or high humidity.