

PRB SOUS-ENDUIT R&D

SEMI-LIGHTWEIGHT, FINE-GRAINED, ECO-DESIGNED SINGLE-LAYER UNDERCOAT



The +s of PRB SOUS-ENDUIT R&D

- + Carbon footprint reduced by 52%*
- + Guaranteed cement-free
- + Waterproofing for Rt2 & Rt3 exterior walls and interior walls



EN 998-1 Type OC2
CS category: II Wc1



PACKAGING

– Paper bag containing 25 kg.

STORAGE LIFE: 18 months.

CONSUMPTION/USE

The consumption varies depending on the surface (type, flatness, roughness, etc.).
NB: The thickness at all protruding points of the façades must be at least 10 mm, in order to ensure proper waterproofing.

– **Minimum thickness of 10 mm: 17 kg/m²**

Concrete substrates and undercoats:

NB: For decorative plastering, the thickness must be 5 mm at all points.

– **Minimum finished thickness of 5 mm: 8.5 kg/m²**

COLOUR: Pink-grey.



* Calculated against a product of the same category, functional unit and useful life (see the FDES document on the INIES website - FR).

** Important: Longer setting and processing times (see Application section).

APPLICATIONS

USES

- Waterproof undercoat for exterior or interior walls, on all types of buildings, for residential, tertiary or industrial use.

REFERENCE DOCUMENTS

- French DTU Standards 20.1, 23.1, 26.1, 59.1, 42.1 & 52.2.

SUITABLE SUBSTRATES

(see selection guide)

- Concretes.
- Cast-in-place concretes (French DTU 23.1).
- Masonry with breezeblocks and common or light aggregates or bricks with standard or narrow joints (French DTU 20.1) or cellular concrete 500 kg/m³.
- Old masonry and other substrates (please contact us beforehand).

- For underground walls of category III private homes, as defined in the French DTU Standard 20-1, the **PRB SOUS-ENDUIT R&D** should be applied to the outside of the buried wall to a maximum depth of 0.6 m. It must be compacted and finished with a smooth or trowel finish and have a minimum thickness of 15 mm. A 40 to 60 cm wide reinforcing strip of alkali-resistant fibreglass should be inserted into the first coat or layer, at the capillary break, to reduce the risk of cracking.
- Make a horizontal capillary cut in the render, 15 cm from the finished floor, using the cutting edge of a trowel, then fill in with a cord of SNJF-certified 1st category sealant. The underground part concerns category 3 walls only, according to the French DTU 20.1.

UNSUITABLE SUBSTRATES

- All gypsum-based substrates (plaster).
- Paint & thick paint coatings.
- Bare wood.
- Horizontal or sloping surfaces (except arches and soffits).

COMPATIBLE SURFACING MATERIALS

- All unsaponifiable interior and exterior paints.
- Thick paint coatings applied in accordance with the French DTU 59.1 and NF EN 1062.
- Semi-thick coatings (NF EN 1062-1)
- Decorative and ornamental paints - type D2, D3...
- Waterproofing paint A2(1) to A5(4).
- OC1 and OC2 single-layer hydraulic render

or CR decorative coating.

- Glued tiles (please contact us before applying):
For façades:
Natural terracotta tiles on small surfaces (plinths, window surrounds, etc.)
For internal walls:
Compatible with all tiles listed in the French DTU Standard 52.2.

APPLICATION CONDITIONS

- Between 5°C and 35°C.
- Do not apply to frozen, thawing, hot or damp surfaces. Do not apply to surfaces in full sunlight or during heavy rain and strong winds.

TECHNICAL CHARACTERISTICS

INGREDIENTS

- Binders (natural hydraulic lime, high calcium lime and pozzolan).
- Fillers, quartz sands and aggregates.
- Water retention agents & setting agents.
- Water repellent agents.

PRODUCTS

POWDER:

- Max. grain size: 2 mm

PASTE:

- Water retention: ≥ 86%
- pH (alkaline): 12.5 ± 0.5

PERFORMANCE WHEN

HARDENED:

- Density: 1.4 to 1.8 t/m³
- Modulus of elasticity: ≤5,000 MPa
- Flexural strength: 1 to 2.5 MPa

PERFORMANCE ACCORDING TO EN 998-1 - SINGLE-LAYER MORTAR:

- Compressive strength: CS II (1.5 to 5 N/mm²)
- Water permeability after freezing: ≤1 cm³/cm²
- Water vapour permeability: μ < 35

- Thermal conductivity (λ 10, dry): 0.61 W/(m.K) (established value)
- Durability/adhesion after freezing/Rupture: ≥0.2 N/mm² A, B or C.
- Water absorption (Wc1): Capillarity ≤0.40 kg/m².min^{0.5}
- Reaction to fire (non-combustible): A1 (M0).

APPLICATION

⚠ The absence of cement in the product extends the setting time before exposure to water and between layers. Using an accelerators has no effect.

- Quantity of water needed: 16 to 18%
- Mixing time: 3 to 7 mins
- Mixture handling time: 60 mins max.
- Setting time - before contact with water: 8 to 24 hrs
- Setting time - between layers: 24 to 72 hrs
- Maximum thickness per layer: 20 mm
- Maximum working thickness: 30 mm (Localised)
- Min. thickness (waterproofing): 10mm.

UTILISATION

PREPARING THE SURFACE

- Surfaces must be clean, dust-free, stable, and any large chips, cracks or dents must be filled in beforehand.
- In hot weather and/or dry or gusty winds, the substrate should be wetted the day before application and again prior to application if necessary to prevent the render drying out.
- Refer to "Preparing the surface", as well as to "Applying an undercoat according to the condition of the surface".

PREPARING THE MORTAR

Mortar pumps/sprayers - Concrete mixers (batch mixers).

- Add **PRB SOUS-ENDUIT R&D** to 4 to 4.5 litres of clean water per 25 kg bag and mix for 5 minutes.
- The water ratio and mixing time should be kept as consistent as possible to ensure a uniform application.

PUMP/SPRAYER SETTINGS

Grouting pump

- Set the water pressure to: 12 to 14 bars

- Paste operating pressure: 18 to 24 bars
- Sprayer flow rate: 14 to 18 L/min
- Spray nozzles (min. Ø): 12mm.

Spray guns

- Air pressure: 6 to 8 bars.

Manual

- Can be applied in small strokes with a plastic mortar trowel, overlapping slightly.
- Level the base layer by smoothing the render with a straight edge.

APPLICATION AND TYPES OF FINISH

- Rough finish or scraped to obtain a decorative cement/lime coating or float-finish in 2 layers for applying paint, waterproof paint, thick paint coatings, semi-thick coatings, etc.

PRECAUTIONS FOR USE

- Contains lime.
- Refer to the packaging safety label and safety data sheet before use.

Technical Data Sheet - 29 August 2022

This technical data sheet is provided for the sole purpose of informing our customers about the characteristics of the product. Its content is based on up-to-date information. Before using the product, the user is advised to check whether this sheet has been replaced by a more recent version. The warranty conditions for our products, processes and systems are specified at the beginning of this catalogue. You can also find them, along with all regulatory and safety documents, online at www.prb.fr.