

PRB TP RÉPAR R4 PR

THIN, FIBRED, QUICK SETTING MORTAR FOR STRUCTURAL CONCRETE REPAIRS.



The PRB TP RÉPAR R4 PR

- Can be applied in thick layers up to 100 mm in places
- Smooth finish
- Compensated shrinkage product
- Excellent resistance to seawater and sulphates

PACKAGING

- 25 kg paper bag.
- 1.2 t pallet, i.e. 48 25 kg bags.

STORAGE: 12 months.

CONSUMPTION

As an indication: 2 kg/m²/mm of thickness.

COLOUR: Light grey.



Class R4 as per EN 1504-3



AREA OF USE

USE

- Concrete repairs
- Vertical, horizontal or underside application, interior or exterior use
- Repair and filling of chips, step nosing, balconies, holes, chases, etc.
- Restructuring of damaged structures: posts, slabs, vaults, beams, etc.
- Treatment of passive cracks.

AUTHORISED SUBSTRATES

- Concrete.

PROHIBITED SUBSTRATES

Do not use on substrates that are:

- Plaster.
- Covered with organic products (to be completely eliminated)
- Crumbling or weak
- On industrial floors or floors with heavy traffic that are not covered with suitable coverings

APPLICATION CONDITIONS

- Between 5°C and 30°C.
- Do not apply on substrates that are frozen or thawing, hot or exposed to full sunlight, soaked or exposed to driving rain and strong winds. Do not apply if there is a risk of freezing temperatures in the following 24 hours.

TECHNICAL CHARACTERISTICS

COMPOSITION

- Hydraulic binders, sands, fibres, additives.
- Grading: 0-0.8 mm.

PRODUCT POWDER

- Apparent density of the powder: 1.4 t/m³.

PASTE

- Pot life: 15 min approx. at 20°C

- Setting time

Temperature	Setting start	Setting end
at 20°C	30 min	60 min
at 5°C	1 h 30	3 h 30

- Floating time: 25 min.
- Release time: 2 to 3 h

Performances when hard

Compliant with the EN1504-3 standard class R4
• Mechanical strengths in MPa as per EN12190

Strength	at 24 h	7 days	28 days
Bending	4	8	10
Compression	30	40	50

- Adherence on concrete: ≥ 2MPa.
- Thermal compatibility (Parts 1, 2, 4): ≥ 2MPa.
- Carbonation resistance: OK
- Chloride ion content: ≤ 0.05 %
- Modulus of elasticity: 25 GPa
- Fire behaviour: A1

- Capillary absorption: ≤ 0.5 kg.m⁻².h^{0.5}
- Abrams ½ cone slump test: 3 cm
- Time before covering:
 - Bonded tiling: 48 h.
 - Mortar render: ≥ 7 days.
 - Paint, TPC: 24 to 72 h depending on ambient conditions and the thicknesses applied.

These values are laboratory testing values determined using applicable technical guides. Application conditions may significantly alter them. The times indicated at 20°C are extended at lower temperatures and shortened at higher temperatures.

PREPARATION

SUBSTRATE PREPARATION

- The substrate must be hard, cohesive, rough, clean and dust-free.
- Sound the areas to be repaired using a hammer and eliminate the defective parts with a pick to reveal the healthy concrete.
- Leave sharp edges on edges of the repair
- Chases: open each chase to obtain a minimum 1 cm square or triangular section of a depth ≥ the width.

TREATING STEELS CONSIDERED TO BE HEALTHY

- Completely bare the rebars, including the back, for a depth of 1 to 2 cm so that the mortar properly coats them.
- Deoxidise the rebars on all sides by brushing or sand-blasting until "white metal" is obtained, then protect it immediately.
- **Option 1:** Treat the rebars using **PRB PASSIVANT ACIER** and leave to dry.

- **Option 2:** Treat the rebars by applying a slurry composed of 50 % **PRB TP RÉPAR R4 PR** mixed with 50 % pure **PRB LATEX** resin using a brush.
- Remove all the dust from the areas to be repaired.

WETTING

- Start by wetting the areas to be repaired and leave to dry (the substrate must be damp but not dripping wet).

INCREASED ADHERENCE*

On the areas to be repaired, if necessary, prepare a slurry using **PRB TP RÉPAR R4 PR** mixed with a **PRB LATEX** resin solution + water of 1/3 resin and 2/3 water, i.e.:
 • 0.4 l **PRB LATEX** + 0.8 l of water for 5 kg
 • 2 l **PRB LATEX** + 4 l of water for 25 kg
 Spread the slurry over the concrete in a layer of about 2 mm using a wide brush.

PRODUCT PREPARATION

Mix the **PRB TP RÉPAR R4 PR** with potable water in a clean container:
 • 4 l approx. per 25 kg bag
 • 0.75 l for 5 kg,

MANUAL APPLICATION

- The first application of **PRB TP RÉPAR R4 PR** must occur:
 - As soon as the **PRB PASSIVANT ACIER** (Option 1) or the slurry (Option 2) stiffens.
 - In cases where an ADHERENCE STRENGTHENING has been used, as soon as it stiffens and before it has hardened.
- **PRB TP RÉPAR R4 PR** is applied in successive applications of 5 to 100 mm.
- Fill cavities and strongly compact the mortar so that it adheres.
- Wait for the 1st application to stiffen before applying the next.
- Profiling: cut the excess using a trowel edge or a level.

- Smooth using a smoother or finish by floating using a plastic or polystyrene float.

PRECAUTIONS FOR USE

- Contains cement and/or lime.
- Refer to the regulatory labels on the packaging and to the safety data sheet before use.
- Comply with applicable regulations.