# PRB TP RÉPAR R4 PR

QUICK-SETTING, FINE-GRAIN, FIBRE-REINFORCED MORTAR FOR STRUCTURAL REPAIRS TO CONCRETE



# **The </u> s of PRB TP RÉPAR R4 PR**

Restructuring structures

EN 1504-3

Class R4

- Shrinkage-compensated & very smooth finish
- 8 Can be applied in thicknesses up to 100 mm
- 8 High adhesion and very high compressive strength
- Excellent resistance to abrasion and aggressive environments



Concrete.



## AREA OF USE

### USES

- · Concrete repairs.
- · Can be applied vertically, horizontally, on the underside of surfaces, indoors or outdoors.
- Perfect for repairing and filling in gaps, cracks, the front edges of steps and balconies, holes, grooves, etc.
- · Repairing damaged structures: pillars, slabs, archways, beams, bridge pillars, etc. • Filling dormant cracks.

## **TECHNICAL CHARACTERISTICS**

#### The NF030 certified characteristics are based on a mixing ratio of 16%.

#### INGREDIENTS

- Fluid binders, sand, fibres and additives.Grain size: 0-0.8 mm.

UTILISATION

reach the sound concrete.

APPLYING TO SOUND STEEL REINFORCEMENTS

repair.

coating.

SUBSTRATE PREPARATION

• The substrate must be hard, adherent, rough, clean and free from dust.

Hammer out the areas to be repaired and

remove any damaged sections until you

· Leave sharp edges on the edges of the

 For grooves: open each groove to create a square or triangular section of at least

1 cm wide, with a depth equal to or less than the width of the groove.

Completely expose the reinforcement

bar(s), including the reverse side, to a depth of 1 to 2 cm so that the mortar can

embed around the reinforcement bar(s).

• Option 1: Apply PRB PASSIVANT ACIER

to the bars and leave to dry.

Remove any rust from the bars by brushing

or sandblasting and then apply a protective

#### PRODUCT POWDER

Bulk density of the powder: 1.4 t/m<sup>3</sup>.

#### PASTE

 Manipulation time (workable life of the mix): Approx. 15 mins at 20°C.

#### Completely Starts to set set 30 mins 60 mins 1.5 hrs 3.5 hrs

· Workable time - trowelling: 25 mins. · Waiting time before removing shuttering/ formwork: 2 to 3 hrs.

• Option 2: Use a brush to apply a mixture of 50% PRB TP RÉPAR R4 PR and 50% pure

beforehand and leave to dry (the surface

should be damp but not dripping wet).

FOR IMPROVED ADHESION\* (not certified)

If necessary, apply a mixture of **PRB TP RÉPAR R4 PR** and a **PRB LATEX** 

resin + water solution to the areas to be

0.4 L of PRB LATEX + 0.8 L of water for

2 L of PRB LATEX + 4 L of water for 25 kg.

Using a brush or wide paintbrush, spread

the mixture onto the concrete in layers

approximately 2mm thick.

repaired. For example:

5 kg

PRB LATEX resin to the steel bars.

Remove any dust from the areas to be

MOISTENING THE SUBSTRATE

· Moisten the areas to be repaired

#### Performance when hardened Class R4 in accordance with EN1504-3

PACKAGING

- Paper bag containing 25 kg

STORAGE LIFE: 12 months.

CONSUMPTION/USE As a guide: 2 kg/m<sup>2</sup>/mm of thickness.

COLOUR: Light grey.

**PROHIBITED SUBSTRATES** 

· Organic coverings (to be avoided

Industrial floors or floors subject to frequent use that are not covered with a suitable

· Crumbling or weak surfaces.

Do not use on:

completely).

Plaster.

coating

 Mechanical strength in MPa in accordance with EN12190.

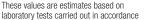
Strength	after 24 hrs	7 days	28 days
Flexural	4	8	9
Compressive	30	40	50

- Adhesion to concrete: ≥ 2 MPa. Thermal compatibility (Parts 1, 2 & 4): ≥ 2 MPa.
- Resistance to carbonisation: OK • Chloride ion content:  $\leq 0.05\%$ .
- · Modulus of elasticity: 25 GPa.
- Reaction to fire: A1.

## **PRODUCT PREPARATION**

- Mix PRB TP RÉPAR R4 PR with clean water
- in a clean container:
- · Approx. 4 L of water per 25 kg bag
- 0.80 L of water per 5 kg bag.

- MANUAL APPLICATION
  The 1st layer of PRB TP RÉPAR R4 PR can be applied: As soon as PRB PASSIVANT ACIER (Option
- 1) or the PRB TP RÉPAR R4 PR/PRB LATEX mixture (Option 2) has dried/set. If you have applied a PRB TP RÉPAR R4 PR/PRB LATEX/water mixture for IMPROVED ADHESION:\* as soon as it becomes firm but before it has completely
- hardened. Apply PRB TP RÉPAR R4 PR in successive layers of 5 to 100 mm thick.
- · Fill any cavities and press the mortar firmly into place
- Wait until the first layer has hardened before applying the next.



with the applicable technical guidelines. The application conditions can significantly change these values. These times are based on an ambient temperature of 20°C. They will be longer at lower temperatures and shorter at higher temperatures

**APPLICATION CONDITIONS** 

· 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. Do not apply if there is a risk of frost

or freezing temperatures within the next

 Capillary Absorption: ≤ 0.5 kg/m<sup>-2</sup>.h<sup>-0.5</sup> Consistency according to concrete slump test (Abrams cone test): 3 cm.

Waiting time before covering/coating

Between 5°C and 30°C.

24 hrs.

- · Profiling: trim any excess with the edge of
- the trowel or a straight edge. · Smooth with a smoothing trowel or float, or finish with a polystyrene or plastic finishing trowel

## **PRECAUTIONS FOR USE**

- · Contains cement and/or lime. · Please read the packaging safety label and
- safety data sheet before use. Please respect the applicable regulations. · For paint and thick paint coatings, the minimum drying time will depend on the thickness, ambient conditions and the recommendations of the paint manufacturer

  - Technical Data Sheet 11 January 2024

- Glued tiles: 48 hrs. - Mortar rendering: ≥ 7 days. - Paints & thick paint coatings: 24 to 72 hours, depending on the ambient conditions and the thickness applied. These values are estimates based on

- CONCRETE REPAIRS: STRUCTURAL REPAIRS PRB TP RÉPAR R4 PR

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PECIALIS MORTARS

at 20°C at 5°C

renaired



SUITABLE SUBSTRATES