PRB ALG GRAIN FIN

LIGHTWEIGHT FINE GRAIN SINGLE-COAT RENDER

Benefits of the PRB ALG GRAIN FIN

- Weatherproof, breathable and decorative through colour render for external and internal masonry walls
- Suitable for all types of finish (fine scraped, floated, roughcast, rustic and spray textured)
- Its specific formulation makes it especially suitable for low strength masonry e.g. lightweight blockwork
- Also available in Snow white colour



KEY PRODUCT INFORMATION

- 25 kg paper bag.
- 1.4 t euro pallet, i.e. 56no 25 kg bags.

CONSUMPTION

Consumption rates provided are for a scraped render finish and will vary according to the substrate conditions (type, flatness, roughness). Consumption will vary for other finishes.

- Minimum thickness of 10 mm: 1.8m² per 25 kg bag - 13.8 kg/m²
- Minimum thickness of 12 mm: 1.5m² per 25 kg bag - 16.6 kg/m²
- Minimum thickness of 15 mm: 1.2m² per 25 kg bag - 20.8 kg/m²

The minimum thickness applied will vary depending upon application finish and weather rating zone but must be applied at the specified thickness to guarantee the weatherproofing function.

COLOUR: 100 PRB colours and Sun + colours.

STORAGE: 18 months

WATER CONTENT: 5 25 - 6.25 L / 25kg bag

APPLICATION TEMPERATURE: 5°C - 30°C

EN 998-1 Type OC1
Class. CR-CS III for the colour 'Snow'
Class. CR-CS II for the other colours

USAGE GUIDE

WHERE TO USE?

- Exterior or interior walls on all types of housing, office or industrial buildings.

SUITABLE SUBSTRATES

✓ Lightweight cellular aircrete concrete block masonry of a density ≥ 400kg/m³ as per EN 772-13.*

✓ Concrete* or brickwork*.

✓ Concrete block.

✓ Clay insulating blocks*.

✓ Existing sound cement renders*.

*These substrates will generally require a suction control coat of **PRB ACCROFIX PÂTE**. If unsure contact the PRB Technical Department. Other substrates, please contact PRB.

✓ Existing sound cement renders*.

For below DPC applications to concrete & concrete block walls comprising of a cavity construction, **PRB ALG** can be applied at a depth of 0.60 m max when enhanced with **PRB LATEX**.

It must be given a smooth or floated finish and be at least 15 mm thick. Embed a reinforcing strip of **PRB ORANGE MESH** or **PRB AVE MESH** throughout the application to reduce the risk of cracking.

For full application guidance for a particular substrate request a specification from PRB.

PROHIBITED SUBSTRATES

✗ All Gypsum-based substrates (Plaster).

✗ Paints, thin coat render finishes.

✗ Directly on wood.

✗ Horizontal or sloping surfaces (except arches and undersides of lintels).

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 or strong drying winds (hot or not).
- Avoid applying dark colours at temperatures < 8°C and in very damp conditions (increased risk of blooming)
- Take extra precautions when applying in hot weather and strong winds in order to avoid premature drying out which can be detrimental to the appearance, strength or aesthetics of the render.

NB: Floated finishes generate shade differences and micro-cracking caused by early surface drying (surface should be protected against this - Refer to GENERAL ADVICE) that can be detrimental to the appearance or aesthetics.

COLOUR

- Because this is a naturally pigmented product whenever possible, obtain colour samples prior to specifying and apply a sample panel for approval before proceeding. Ensure you follow the mixing guidelines and water content for the product to avoid a shade difference.
- The quantity of material required for a given area (e.g. when applying to the same elevation) should be of the same batch number or if not, the different batches of material must be thoroughly mixed to avoid shade variations.
- Avoid applying the render to the same elevation at different times or applying half of the elevation one day and the other half another day as shade variations can occur.
- If using the **PRB ACCELERATEUR FLASH** ensure the products instructions are followed. Use throughout the render application on the same elevation and for the whole elevation. The use of accelerators tends to darken colours.

REFERENCE DOCUMENTS

- BS 5628-3 Code of Practice for the use of masonry.
- BS EN 13914-1 Code of Practice for external rendering.
- BS 8000 Workmanship on building sites.

COMPOSITION

- Binders (white cement, natural hydraulic lime, calcic lime).
- Fillers, sand and quartz aggregates.
- Water retention agents, setting regulators.
- Integral waterproofing, mineral pigments stable in light.

MIXING, APPLICATION & CURING OVERVIEW

- Mixing rate: 5.25 to 6.25 L clean water / 25 kg bag
- Mixing time: 3 to 7 mins.
- Batch life time: 60 min. max.
- Curing time: 4 to 24 hrs
- Time between applications: 1 to 72 hrs
- Max. thickness per layer: 20 mm
- Max. total thickness: 30 mm

N.B.: These values are estimates based upon standard laboratory or site testing. The preparation conditions, conditions of use, substrate type, site conditions etc. can significantly alter these values.

PRODUCT CHARACTERISTICS

POWDER:

- Max. grading: ≤ 2 mm

MIXED PRODUCT:

- Water retention: 91 to 97 %
- pH (alkaline): 12.5 ± 0.5

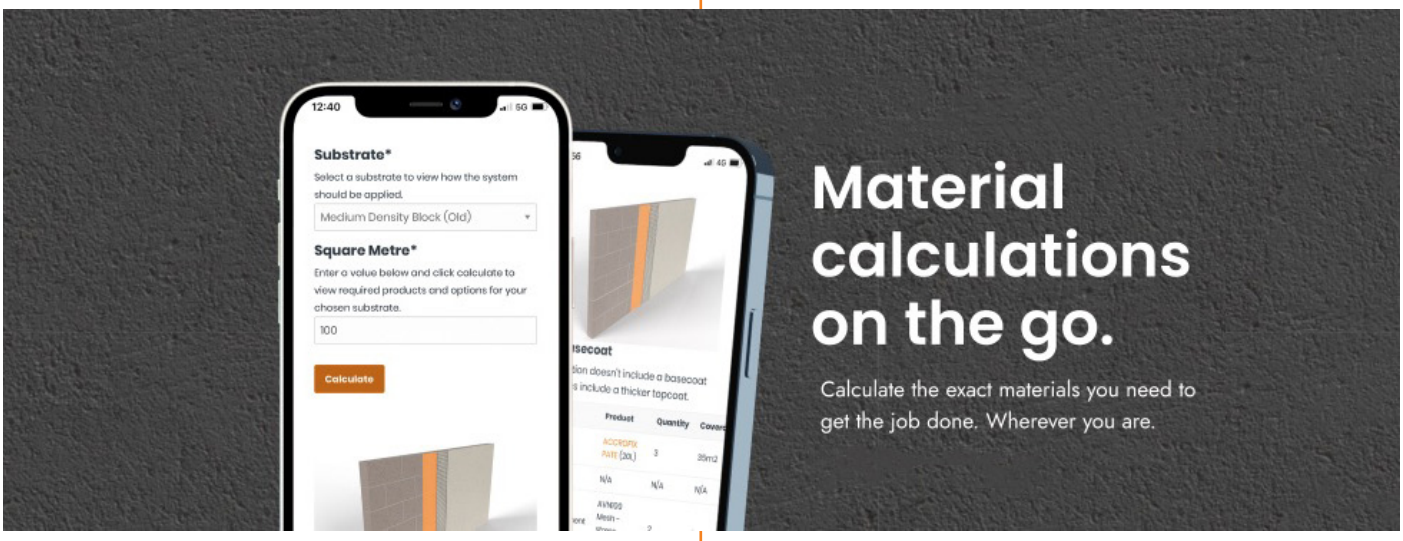
RENDER PERFORMANCE WHEN HARD:

- Density: 1 to 1.4 t/m³
- Modulus of elasticity: < 5000 MPa
- Bending strength: < 2 MPa

RENDER PERFORMANCE AS PER EN 998-1
SINGLE COAT MORTAR OC1:

- Water permeability after freezing: ≤ 1 cm³/cm²
- Permeability to water vapour: μ < 20
- Thermal conductivity (λ 10 sec.): 0.45 W/m²K (tabulated value)
- Durability/adhesion after freezing/Rupt: ≥ 0.2 N/mm² A or B or C
- Compressive strength: Snow: CS III (3.5 to 7.5N/mm²). Other colours: CS II (1.5 to 5N/mm²)
- Water absorption W2: C ≤ 0.20 kg/m².min0,5
- Fire behaviour (non-combustible): A1

SCAN THE QR CODE BELOW TO FIND THE MATERIAL QUANTITY NEEDED



APPLICATION

1. SUBSTRATE PREPARATION

- Substrates must be sound, clean, free of dust, stable and free from anything that may interfere with the adhesion of the material being applied.
- Wet but do not saturate the substrates ½ hour before application to leave a dampened surface before applying the render.
- Some substrates may benefit from a suction control bonding coat of **PRB ACCROFIX PÂTE.**
- For full application guidance, request a specification from PRB.

2. MORTAR PREPARATION

Render spraying machines

- Mix **PRB ALG Grain Fin** with 5.25 to 6.25L of clean water per 25 kg bag for 5 minutes.
- The water dosage and the mixing time must be as consistent as possible to guarantee the evenness of the colour throughout the application.
- Similarly, when using batches with different dates, these should be mixed proportionately to avoid possible variations in shade.

NB: Always check before commencing by producing a sample panel for approval.

3. SPRAY EQUIPMENT SETTINGS

Render pump

- Water pressure setting: 12 to 14 bars
- Mixed product operating pressure:18 to 24 bars
- Lance output flow rate: 12 to 45 L/min
- Spray nozzles (min. Ø): 12 mm

Spray pots

- Air pressure: 6 to 8 bars

Manual

- The application can be carried out by applying trowels of mortar with a highly elastic consistency and slightly overlapping one another.
- The render base-coat is ruled level using a straight edge or Derby.

4. RENDER BEAD ADHESION

- Adhere the render beads on dabs of **PRB ALG** at maximum 300mm centres & level and line to suit or use the **PRB RENDER BEAD ADHESIVE.**

5. APPLICATION AND FINISH OPTIONS

Apply the **PRB ALG GRAIN FIN** in a one or two-pass / coat operation to the required 12, 15 or 20 mm thickness or to a maximum thickness of 30mm. Beyond this thickness contact PRB. As part of the application as a minimum, embed 500 x 300 mm diagonal stress patches using **PRB ORANGE MESH** or **PRB AVE MESH** across the corner of the openings to provide crack resistance. In addition, full or partial mesh may also be required for enhanced benefit.

SCRAPED FINISH:
For a scraped finish apply an additional 2 - 3mm as this will be removed by the scraping process to give a finished thickness of 12, 15 or 20 mm. Rule and level the surface using a serrated Darby, straight edge or spatula, then smooth the surface and allow to harden for between 5 and 16 hours depending upon the temperature. Sometimes a longer period may be necessary depending on weather and background conditions. When sufficiently set, using an I bar, scrape the surface to remove high points and begin opening the surface of the render, then using a scraping float, scrape the surface in small circular motions, removing no more than 3 mm from the surface to remove any slight imperfections and to bring the total render application to the desired scraped finish, specified thickness and to leave an unblemished finish. Always stand back and examine the whole surface for blemishes and unevenness. Errors must be corrected at this stage as rectification later is unlikely to be achieved. Each elevation must be scraped at the same stage, as early scraping e.g. same day, will result in a slightly darker shade and later scraping e.g. next day, in a lighter shade.

SPRAYED TEXTURED/ROUGHCAST FINISH:
Apply a minimum ruled and level 10, 13 or 18 mm base coat. Ensure the render is sufficiently dry but still in a green condition - 1 - 2 hours, then spray the textured coat to the desired effect from light Tyrolean to a Heavy Roughcast appearance to create a single monolithic coat. During the spraying process allow time between each build-up of the textured layer for the render to "semi-set" to avoid creating a slump effect in the finish. This building up process will also enable the creation of a heavy roughcast appearance.

FLOATED FINISH:
Trowel, Sponge or Bagged Finish – Please note: The surface appearance of floated finishes, if overworked can create a surface slurry which can cause surface micro cracking and inconsistencies in the appearance, shade, and finish. Dark shades accentuate these appearances. This is not detrimental to the render finish.

APPLICATION (continued)

Floated finishes will also tend to leave a variable surface appearance and generate shade differences which is part of the appeal of these types of finishes.

- A trowel finish is achieved by skimming the level and ruled surface with a wooden or plastic float to produce a smooth dense surface to the desired effect.
- A sponge finish is achieved by skimming the level and ruled surface with a sponge float to produce a slightly sanded surface to the desired effect.
- A bagged finish is achieved by rubbing a ball of damp hessian over the surface which produces patterns depending on the style of rubbing.
- Care must be taken not to let water run down the wall spoiling the finish by washing the cement out of the render.

ASHLAR DETAILING:
When ashlar detailing is required allow additional render thickness to accommodate the depth of ashlar cut and carry out the process when the render is in its semi-cured state. it is recommended that a minimum depth from the substrate to the back of the ashlar cut should be no less than 12, 15 or 20 mm subject to application requirements.

NOTE: Ensure the mesh is deep enough not to be exposed during the ashlar cutting process.

GENERAL ADVICE:
It is advisable to dampen the surface after initial curing of the topcoat finish, using a garden sprayer or mist spray from a hose to prevent early surface hardening which can lead to surface micro cracking. Until the render is dry and hardened, it is recommended to cover with hessian or mortar fleece to protect from drying winds, frost, strong sun and driving rain.

Caution must be given when dealing with darker colours because these are more vulnerable to marks showing on the finish generally caused by over working the finish, adding too much water to the surface when sponging or trowelling, or using dirty trowels or sponges, or finishing during unsuitable weather conditions (e.g. wet or damp climatic conditions, direct sunlight, drying winds) and not taking suitable precautions against these conditions, therefore good application procedures and techniques are paramount to avoid these effects occurring.

Colour consistency
The evenness and consistency of the colours will be affected by the climatic conditions in which they are applied (temperature, humidity, wind, sunlight). Since this product sets by water evaporation, shading may occur if the application conditions are not identical. Similarly, surface shadowing can be created in the finish by scaffolding platforms and scaffold poles when the sun is shining, due to the difference in drying between the area exposed to the sun and the area in the shade. This phenomenon is more noticeable with darker shades.
To avoid this natural phenomenon, we recommend that scaffolding be covered with a tarpaulin or netting to reduce the amount of solar energy absorbed and to ensure uniform setting and drying conditions.

HEALTH & SAFTEY

- Contains cement and lime.
- May produce an allergic reaction. Harmful if inhaled, irritating to eyes and skin. Wear suitable protective clothing, gloves and eye/face protection.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water.
- Keep out of the reach of children.
- For further information, please read the Material Safety Data Sheet for this product.

The only purpose of this technical data sheet is to inform customers about the product and its specific uses. The information it contains is based on current knowledge and experience. The end user must carry out a representative test to ensure the product is suitable for their specific application and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Our general terms and conditions of sale shall prevail, and the end user should check to ensure this document has not been replaced by a more updated version.

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