

Reinforced Render

A glass fibre, reinforced, high performance waterproof render

Packaging



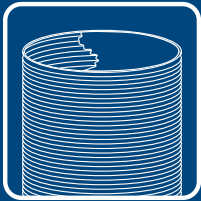
Mixing



Application



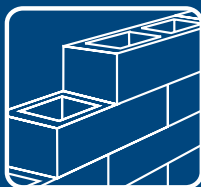
Uses



Waterproof drinking tanks



High performance render



Surface render for dry stacked blocks

Substrates

Concrete
Brick, Block
Stone
Cement render
Galvalised iron
Styrene foam
Plasters mesh

Description

A cement and fibre aggregate premix containing alkali-resistant glass fibres and waterproofing additives making the product suitable for use as a high performance render. The addition of the alkali-resistant glass fibres makes a rendering mix with greatly enhanced performance compared with conventional render.

Uses

Ideally suited for applications requiring waterproofing and/or high impact resistance. Some typical uses are:

- Waterproofing render, e.g. tanks, cellars, basements, etc.
- Impact-resistant walls on squash courts, goals, psychiatric units, hospitals and schools
- Hygienic hard-wearing coating in the pharmaceutical and food processing industry
- Apply to expanded plasters mesh to make lightweight maintenance-free walls and facades
- Strengthens weak, unstable, fire affected brick and block walls
- Surface bonding render for block walls stacked without mortar.

(A surface bonding, building instruction book is available on request)

Features

Reduced liability to cracking and greater resistance to water penetration gives **Reinforced Render** a high degree of impermeability compared to ordinary renders. Due to the mix formulation and the reinforcing fibre, **Reinforced Render** adheres strongly to clean substrates and the resistance of the hardened render to abrasion and impact is excellent. **Fire Resistance – Reinforced Render is not combustible.**

Coverage (Approximate)

4m² per 20kg bag 3mm thick

Performance Data

Compression Strength
(BS 4551) 40.00N/mm² (28 days)

Flexural Strength
(BS 4551) 8.8 N/mm² (28 days)

Water Resistance
(FSTTP-0035) 2.5mm thick coat 160kph wind for 8 hrs - no penetration

Water Vapour Transmission
(ASTM C-355) (desiccant method)
162 grams/24hr/m²

Combustibility
(ASTM E-136) Non-combustible

Weather Resistance
Twin AIC Weatherometer no effect after 2,000 hrs.

Specification

The render shall be a waterproof, non-combustible, alkali-resistant, glass render with a minimum compression strength of 40 N/mm² and flexural strength of 8.8 N/mm², such as **Reinforced Render** manufactured by **Construction Chemicals** and shall be applied strictly in accordance with the manufacturer's instructions.

Acrybond

The addition of **Acrybond** to the mixing water is recommended at 1 litre per 20kg bag for normal application and 2 litres for severe applications.

Surface Preparation

Any local deterioration (cracks, holes, mortar joints, etc.) must be made good by cutting out and filling. New concrete walls must be free from mould oil. The surface to be rendered must be sound, clean of oil, dirt, mud, efflorescence and other contaminants. Smooth surfaces must be roughened or acid etched. Porous surfaces must be wet thoroughly.

Mixing

- Mix in a wheel barrow using a hoe or similar as a mixing tool.
- Place 4 litres of water/1 litre of **Acrybond** in a barrow and progressively add 20 kg of **Reinforced Render** mixing to a thick, creamy consistency.
- Avoid over-mixing as this will break down the fibres making the mixture lumpy and difficult to apply.
- More water can be added up to 30 minutes after mixing to adjust the mix to workers preference.
- Discard unused material after 1 hour.

Application

Apply the **Reinforced Render** using the same techniques as that adopted for normal rendering. Apply the **Reinforced Render** 3mm thick. To eliminate show-through from the substrate two 3mm coats are recommended. The second coat should be applied while the first is green – that is within 24 hours. The use of **Acrybond** is recommended. Apply when temperatures are between 5°-30°C, using upward diagonal strokes. Apply firmly but avoid excessive pressure. Avoid stops or cold joints in the centre of the wall by planning work to stop at natural stopping points, i.e. wall columns, tops, intersections and expansion joints.

Finishing

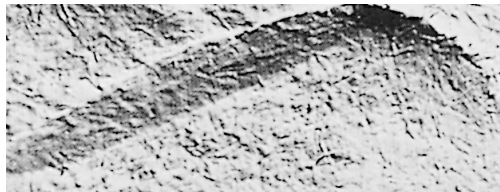
Finish **Reinforced Render** in a similar manner to normal renders. To hide show-through from the substrate textured finishes are recommended or two coats where a smooth finish is required.

Smooth finish



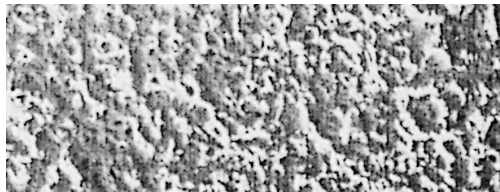
Obtained with a normal plasterers trowel by trowelling to a semi-smooth finish initially then retrowel with a clean wet trowel while the render is still wet on the surface. A stainless steel trowel should be used to reduce the risk of metallic blemishes. Over-trowelling may lead to fine hairline crazing of the surface. Trowelling a surface which has lost its moisture will result in dark trowel burns forming on the dry areas. Should this occur, the affected area should be immediately dampened, rubbed with a wood float and carefully retrowelled.

Stucco finish



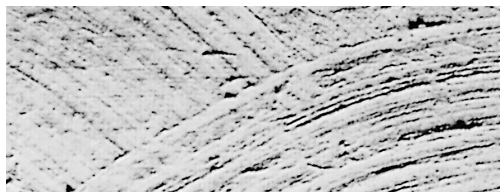
Achieved by applying more than 3mm in a sweeping motion.

Stippled effect



Achieved by imprinting a semi-smooth finish with a mason's float or textured roller.

Swirled finish



Achieved by imprinting the semi-smooth finish with a hard bristled brush.

Mix sufficient **Reinforced Render** to complete each section with one mix to avoid cold joint lines. Finishing time is extended by application to the shaded side of the wall. Finish the render while the surface is wet.

Reinforced Render can be painted using masonry paints (eg., **Elastakote**, **Roltex**) that are resistant to alkaline substrate. Paints that cure initially on the surface and rely on the substrate to absorb the remaining solvent are not suitable.

Curing

Mist spray the surface 3-4 times daily for 3 days and repeat more frequently in hot windy conditions. **Reinforced Render** mixed with **Acrybond** does not require curing. Protect the surface from rain for the first 3 days.

Limitations

Reinforced Render like any cement-based product is susceptible to staining from timber, clay and dirt and careful work practices should be followed or protect the surface to avoid staining. Do not use structurally in areas that maintain high temperatures (80°C plus) and high humidity (80%).

Colour Variation

The appearance of any cement based coating can vary depending on many factors. Some obvious variables are suction or porosity of the substrate, workmanship, rate of cure, water/cement ratio, weather conditions, etc.

Some tips to minimise colour variations are:

1. Accurately measure mixing water using the same amount in each batch.
2. Avoid application during extremes in temperature and apply to the wall when shaded and in cooler conditions.
3. Two coats are recommended to minimise variation in colour, applying the second coat an hour after the first.
4. Avoid finishes that require using wet sponges or splashing with water.

Safety Precautions

Glass fibre and cement can cause skin irritation when wet or can dry and burn the skin. It is advisable to wear gloves and eye protection when applying **Reinforced Render**. Wash away thoroughly any wet render in contact with the skin.

Shelf Life

One year, when stored unopened on pallets in a dry area protected from moisture.



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