



**ENVIROWALL LIMITED NBS SPECIFICATION: GRANOL ANTI-CRACK RENDER SYSTEM APPLIED TO CALCIUM SILICATE BOARD.**

**M20 EXTERNAL RENDER SYSTEM**

To be read with Preliminaries/General conditions.

**SYSTEM SUPPLIER:- Envirowall Ltd., Orchard House, Aire Valley Business Centre, Keighley, Yorkshire, BD21 3DU Tel.01535 661633 Fax.01535 661933 email [info@envirowall.co.uk](mailto:info@envirowall.co.uk) web. [www.envirowall.co.uk](http://www.envirowall.co.uk).**

**TYPE(S) OF COATING**

**101 Granol Anti-Crack Render System.** Must be applied in strict accordance with the manufacturer's written recommendations by an approved specialist sub-contractor from Envirowall limited approved list.

**1. MATERIALS & COMPONENTS**

<b>Sheathing Board</b>	minimum 10mm calcium silicate board
<b>Base-coat</b>	Granol G <b>Ref.GRBC101</b> base coat.
<b>Mesh</b>	Envirowall glass fibre plastic coated alkali resistant reinforcing mesh <b>Ref.EM1</b> .
<b>Primer</b>	Granol acrylic primer <b>Ref.GRP101</b> or Silicone primer <b>GRP102</b>
<b>Top-coat</b>	Granol acrylic topcoat <b>Ref.GRTC101</b> silicone topcoat <b>Ref.GRTC102</b> grain size and colour to be confirmed
<b>Base Profile</b>	Aluminum thin coat base profile 2.5m
<b>Corner Beads</b>	Stainless steel, Aluminium or Plastic with mesh wings

**1.1 BASE PROFILE:**

Aluminum horizontal base bead, 2.5m long. Base profile shall be fixed to the calcium silicate board with zinc-coated carbon steel fixings. Size, length and spacing of fixings to be in accordance system manufacturers recommendations. Contractor to ensure that system complies with CP3: Chapter V: Part 2: 1972 in relation to its structural stability.

**1.2 TAPE JOINTS**

Boards should be fitted allowing a 2mm gap between boards. All board joints to be taped with 50mm self adhesive scrim tape.

**1.3 BEADING**

Provide beads and stops at all external angles and stop ends except where detailed otherwise. See Section 1.1for Reference.

**1.4 REINFORCING COAT:**

In accordance with Section 1.1

**1.5 REINFORCEMENT**

Reinforcement shall be Specified Envirowall Reinforcing Mesh as per Section 1.1. Glass fibre plastic coated to resist alkali corrosion

**1.6 PRIMER**

In accordance with section 1.1

**1.7 TOPCOAT**

Granul through coloured Acrylic or Silicone topcoat, in accordance with Section 1.1

**1.8 EXPANSION JOINTS.**

Expansion joints are only required in the render at junctures between differing substrates or if there is an expansion joint within the structure. It may prove preferable to use expansion joints as day joints to assist in the programming of the works. In these instances it is advisable to position them at non-conspicuous points such as behind down pipes. All expansion joint should be fitted in accordance with Envirowall's installation instructions.

For timber frame construction, expansion joints should be inserted at all floor levels and internal corners. Please contact Envirowall technical department for details.

**2. APPLICATION**

**2.1** All installation of Envirowall materials in the UK is to be performed by an Envirowall approved Applicator Company. Under no circumstances should any of the Envirowall products be altered with any additives, except for small amounts of clean water as directed on the label.

**2.2** All substrates must be free of loose particles, dust, grease and oils.

**2.3** Align base profile and fix with Envirowall anchors spaced at a maximum of 300mm apart – ensure that the base rail is not distorted. Corners should be made with mitered cuts.

**2.4** Fix corner beads with continuous dabs of base-coat render at corners and align until plumb. Ensure correct line, level and square fixing of corner beads.

**2.5** For base profiles and corner beads fixed with continuous dab of base-coat mortar, allow approx. 12 to 24 hours drying time, depending on weather conditions. Subsequent rendering or finishing work must NOT be carried out until mortar has set.

- 2.6** All beads should be cut neatly, miters formed at return angles and sharp edges, swarf and other potentially dangerous projections removed. Fix securely, using the longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with background. After coatings have been applied, remove coating material while still wet from surfaces of beads/stops, which are to be exposed to view.
- 2.7** All joints to be taped as 1.2 section.
- 2.8** All joints in the calcium silicate board shall be filled with a mastic sealant. Fill only the joints, not the beveled edges. Limit the depth of vertical joints if necessary by packing with non-absorbent round foam cord to 2/3 the depth.
- 2.9** Apply Granol G (as specified in section 1.0) to the sound substrate using a stainless steel trowel to a 3-4mm thickness. Comb through with a 10x6-tooth trowel to achieve a consistent depth of base-coat (see section 1.1). Float specified reinforcing mesh (see section 1.1) into the top of the base-coat render, ensuring a minimum horizontal and vertical overlap of 100mm for the glass mesh. All corners at openings must be additionally reinforced with 250 x 250mm mesh strips embedded diagonally into the wet base-coat render. Leave base-coat render to completely set for at least 2 to 3 days before applying Granol Acrylic/Silicone topcoat finishes.
- 2.10** Install propriety sealant in conjunction with detail drawings.
- 2.11** Apply Granol acrylic or silicone primer (see section 1.1) to dry basecoat render using a short pile roller, prior to applying stated Granol topcoat. Drying time 2-6hrs (weather dependent).
- 2.12** Prior to the application of topcoat, all scaffolding boards should be cleaned to ensure minimum dirt being transferred onto the finished topcoat. The topcoat is a finishing trade; therefore work sequencing should ensure that little or no work is carried out around the render after application of topcoat. Where scaffold plugs are to be retained, appropriate scaffold ties should be used in accordance with system details.
- 2.13** Apply specified topcoat render (see section 1.1) using a stainless steel trowel and immediately create the desired effect using a plastic-finishing trowel. Drying time of topcoat render is approximately 1 to 2 days (weather dependent).
- 2.14** The topcoat render is applied in accordance with the following general rules.
- i.** Using a clean rust-free low speed mixer, thoroughly stir the finish to a uniform consistency.
  - ii.** Finish shall be applied in a continuous application always working to a wet edge. Care should be taken to avoid texture changes at different levels. To prevent

staining of the finish coating, always ensure that the scaffold boards are free from dust before commencing application of the final coat/

- iii If possible, entire sections or elevations should be coated in a single operation to avoid joint marks in the finish. Often this can be achieved by working to natural breaks in the building or changes in colour or texture. Where day-joints are unavoidable these should be made to coincide with natural features such as a line of window cills. Apply masking tape at the desired position of the joint and administer the finish coat to overlap the edge of the tape. Carefully remove the tape while the finish is still wet to leave a fair edge. Once the finish material has set, subsequent applications may be applied by masking the previously completed section with tape and carefully applying the new finish to achieve a barely visible joint.
- iv. Weather conditions will be a factor in the application of the finish as well as the drying time.

### **3. GENERAL COMMENTS**

- 3.1 Application generally:  
Apply each coating firmly to achieve good adhesion and in one continuous operation between angles and joints. All coatings to be not less than the thickness specified firmly bonded, of even and consistent appearance, free from rippling, hollows and ridges.
- 3.2 Finish surfaced to a true plane, to correct line and level, with all angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- 3.3 Prevent excessively rapid or localised drying out.
- 3.4 British Standards recommend that any variation in gap under a 1.8m straight edge (with feet) placed anywhere on the surface should not be more than 3mm.
- 3.5 Drying: Work in the shade and out of drying winds whenever possible. Allow each coat to dry out thoroughly to ensure that drying shrinkage is substantially complete before applying next coat.
- 3.6 Protection Adequately protect newly applied external coatings against frost and rain for the first 48 hours using polyethylene sheet / Debris netting hung clear of the face, or other approved method.

### **4. PROTECTION AND CLEANING**

- 4.1 All installation of Envirowall materials in the UK shall be performed by Envirowall approved installing companies. Under no circumstances shall any of the Envirowall products be altered with any additives, except for small amounts of clean water as directed on the label.

- 4.2** All plasters described should never be applied if ambient and surface temperatures cannot be kept above +3°C for mineral products, +5°C for acrylic and silicon products and +1°C for ice products during application and drying period. Prior to installation, the wall shall be free of residual moisture. The stored material should be protected from frost and strong sunlight.
- 4.3** Most Envirowall products are water based, therefore, the normal conditions for working in winter and during periods of inclement weather should be respected during and after application. Please refer to the Envirowalls winter working policy for advice on protection of finishes.
- 4.4** It is recommended when working with highly pigmented renders to mask or protect other building elements such as windows, sills, etc., spilled or dropped materials may be removed from most surfaces with a wet sponge or cloth before the material has dried out. Renders which have been allowed to partially dry may be removed by using a soap solution or soften the render and warm water to clean the surface. Absorbent surfaces such as concrete, brick, etc. maybe affected by the pigments of the render and where spillage is likely then these surfaces should be protected with appropriate covering material.