



INSTALLATION GUIDE

Terraco Textured Coatings & EIFS/ETICS Render Systems

A ready-mixed acrylic/silicone textured render, applied over a mesh-reinforced basecoat, that forms the weather skin and the finish of an external insulation and finish system (EIFS/ETICS) built on a separate EPS or mineral-wool insulation board.

DOCUMENT	ISSUED	PRODUCT	STATUS
TP-IG-TERRACO-COATIN	2026-08-12	terraco-coatings	Issued for use

BEFORE YOU START

Before anything is bonded, the substrate must be sound, dry, plumb and clean - free of laitance, form-release oil, dust, efflorescence, fungus and loose or flaking paint. Test doubtful areas: if the existing coating lifts with tape, it comes off before the EPS goes on.

Out-of-plane deviation must be within what the adhesive bed can take up. Ribbon and dab absorbs some; a notched-trowel bed absorbs almost none. If the wall is worse than that, dub it out and let it cure first.

On a light-steel frame, the sheathing board and its full fixing pattern must be complete, inspected and signed off before EPS starts. The EPS is not structural sheathing and carries nothing. In the reference Alpha build-up the external sheathing is 10 mm MgO carrier board fixed with 8 x 38 mm wing-tek screws at 200 mm centres, and the internal lining is Siniat Fire-Check plasterboard on 8 x 32 mm drywall screws with 50 mm fibre tape, skim and Promat Promaseal-A fire sealant between board and slab. Neither is a substitution item.

Prime dusty or porous substrates and let the primer dry. Do not start below 5 C, on a frost-risk night, in rain, or on a wall in full hot sun - the render will skin before it can be worked.

TOOLS

- Laser level and string lines - the starter track sets out the whole facade, and if it is not level, nothing above it is
- Rotary hammer drill with a depth stop, and the correct dowel-setting punch
- Notched trowel (10 mm notches) and a hawk
- Stainless steel trowel for basecoat and topcoat; plastic float for texturing
- EPS rasp or board plane - a rasped-flat board face is what produces a flat render, not a thick basecoat
- Hot-wire cutter or fine-tooth handsaw for cutting boards; sharp knife for reveals
- Mesh shears, and a spare roll of mesh for corner patches
- Forced-action mixer or heavy-duty drill with a paddle, and clean buckets
- Spray rig with the correct nozzle if a Granule topcoat is being sprayed
- Scaffolding with shade netting or sheeting - you must be able to keep sun, wind and rain off a wet render face
- Depth pins or a wet-film gauge for basecoat thickness
- Clean water and clean tools - cured acrylic render does not come off

SEQUENCE

1. Set out and fix the starter track

Establish a level datum right around the building and fix the starter track (2.5 m units, sized to the board thickness - 50 or 60 mm) at the bottom of the insulation zone.

It must sit above the splash and ground-contact line. EPS does not run down into permanently damp ground contact, and a rendered skin is not a below-grade waterproofing system. Butt the track ends, do not overlap them, and pack behind the track where the wall is out of plane.

CHECK BEFORE MOVING ON

- Track is dead level all round and the datum closes back on itself
- Track sits above the splash and ground line, with a drip edge
- Track is packed off a hollow substrate, not sprung

2. Mark out the firebreak lines before a single board goes up

Set out, on the substrate, the horizontal firebreak line at every floor slab and the vertical fire-break lines from the project fire design. Mark every window and door opening for its mineral-wool surround.

Do this now. A firebreak that has to be cut into an already-boarded wall is a firebreak that gets skipped.

Horizontal breaks go on every floor slab. Vertical breaks go in at 5 m maximum spacing and at every division, occupancy and tenancy separating element. Mineral wool goes around all window and door openings, with horizontal breaks at least every third storey. Take the governing set and mark it out.

CHECK BEFORE MOVING ON

- Horizontal firebreak line marked at every floor slab, continuous around the building
- Vertical fire-break lines marked, 5 m maximum spacing
- Every window and door opening marked for its mineral-wool surround
- Setting-out agreed with the fire engineer before boarding starts

3. Bond the boards - adhesive and dowels, never one or the other

Mix the adhesive - Styrobond DP, or PolyClad Acrylic Plaster at 20 kg powder to 5 L polymer, 4:1 by weight - and let it stand its slake time.

On a level substrate, bed the whole board back with a 10 mm notched trowel. On masonry and uneven substrates, use ribbon and dab: a continuous ribbon of adhesive about 50 mm wide right around the perimeter of the board, plus six dabs about 200 mm across and 10 mm thick in the field. That is about half the board back covered, against a minimum requirement of 40%. Dabs without the ribbon reach only about a quarter - they do not meet it.

Never use a solvent-based adhesive, a bituminous primer or a solvent-borne mastic against EPS. It dissolves the board at the contact face and you will not see it until the render fails.

Set boards from the starter track upward: break-bonded (staggered like brickwork), tight-butted, no adhesive in the joints. Interlock the boards at external corners. Cut boards so that a single board wraps each window and door corner, and keep board joints at least 200 mm clear of opening corners. Tap boards in with a straightedge held across three boards at a time. Boards may not span a structural movement joint.

CHECK BEFORE MOVING ON

- Perimeter ribbon plus six dabs on every board - break a test board off and look at the back
- At least 40% of the board back bonded
- No adhesive squeezed into any board joint
- Joints staggered, boards tight-butted, gaps filled with EPS slivers - never with adhesive or foam
- No board joint aligned with, or within 200 mm of, a window or door corner
- Board faces flush across joints within 2 mm

4. Dowel the boards

Let the adhesive cure - allow 24 hours, longer in cold weather - then drill and set the mechanical dowels.

The nominal rate is 5 per m² in addition to the adhesive. On masonry use an impact-resistant plastic drive-in dowel (boards 50 mm and thicker). On timber or light steel use a polyamide retaining disc with a coated thread-cutting screw, fixed into the sheathing or the frame member. Non-metallic pins are preferred, to limit point thermal bridging.

5/m² is the take-off quantity, not the wind design. On an exposed site, a tall building, and at edge and corner zones and parapets, the engineered pattern from the drawing governs and the density will be higher than in the field. Fix to the drawing.

Set the dowel head flush or very slightly recessed. A proud head telegraphs through the render forever. Do not over-drive it either: a crushed, dished EPS face around every dowel shows through the finish as dimpling.

CHECK BEFORE MOVING ON

- Dowel head flush or marginally recessed - never proud, never crushed in
- The engineered pattern is being followed at edges and corners, not just the field rate
- Drill depth reaches sound substrate through any old plaster or render
- No dowel closer to a board edge than the manufacturer's minimum

5. Install the mineral-wool firebreaks

This is a fire-safety layer. Build it to the lines set out in step 2.

Horizontal breaks: 300 mm wide x 50 mm thick mineral wool (the reference grade is Technopol 130D StoneWool), bonded and mechanically fixed onto every floor slab. Vertical breaks: on the set-out lines, 5 m maximum spacing. Openings: mineral wool with resin content under 5% and minimum 80 kg/m³ around every window and door.

Bond and dowel the mineral wool exactly as the EPS is bonded and dowelled. A firebreak that is only glued on is not a firebreak. Butt it tight to the EPS on both sides - no gap, and no EPS bridging behind it.

CHECK BEFORE MOVING ON

- Horizontal firebreak at every floor slab, continuous - no gaps at corners, no interruptions at scaffold ties
- Vertical fire breaks installed on the set-out lines
- Mineral wool bonded AND mechanically fixed, never adhesive-only
- No EPS running behind or through a firebreak
- Mineral-wool surround at every window and door opening
- Firebreak grade as specified

6. Rasp the board face flat

Rasp the whole face flat with an EPS rasp or board plane, then brush the dust off.

Do it after the adhesive has set, and after any UV exposure. If the boards have yellowed or gone chalky in the sun, rasp back to sound white EPS before basecoat goes anywhere near them - a degraded surface will not hold the bond.

A flat board face is what produces a flat render. Every extra millimetre of basecoat troweled on to hide a bumpy board is a millimetre of shrinkage and cracking waiting for you.

CHECK BEFORE MOVING ON

- 3 m straightedge across the face in every direction - no step at any joint
- Surface is clean white EPS, brushed free of rasp dust
- No yellowed or friable surface left in place

7. Basecoat and embed the mesh

Fit the PVC mesh-legged corner beads at all external angles, drip-nose beads at every soffit, sill and projecting horizontal, and movement beads at structural movement joints. Bed them in basecoat as you go.

Apply the Styrobond DP basecoat at about 5 mm (1.7 kg/m² per mm of thickness, so about 8.5 kg/m²). Work in bays you can finish wet-on-wet.

Lay the Terramesh into the WET basecoat and trowel it in from the centre out until it is fully buried. It must finish in the outer third of the basecoat - never lying on the EPS, never visible on the face. Lap mesh sheets at least 100 mm. Keep the mesh flat and free of folds.

Add a diagonal mesh patch, roughly 300 x 250 mm at 45 degrees, at every window and door corner, on top of the main mesh. Double the mesh through ground-floor and other impact zones. Close with a thin second pass of basecoat if the mesh pattern still reads through.

CHECK BEFORE MOVING ON

- No mesh visible anywhere on the basecoat face
- Every mesh lap is at least 100 mm
- Diagonal patch at every single opening corner - count them against the window schedule
- Double mesh through the ground-floor impact zone
- Basecoat thickness checked with depth pins, not by eye

8. Prime

Let the basecoat cure - 2 to 3 days in summer, 4 to 5 days in winter for PolyClad Acrylic Plaster, longer in cold or damp conditions. On a LiteCore substrate, allow a 14-day cure-out before plastering.

Then apply the penetrating primer evenly - about 100 m² from a 20 kg unit - and let it dry.

Do not skip the primer to save a day. It equalises suction across a basecoat that has cured at different rates in sun and shade, and unequal suction is exactly what produces colour banding in the topcoat.

CHECK BEFORE MOVING ON

- Basecoat fully cured and dry - not just dry on the face
- Primer coverage even, no missed patches - check in raking light
- Primer dry before the topcoat goes on

9. Apply the textured topcoat

Stir the pail thoroughly. Check that every pail on a given elevation is from the same batch - mixed batches are the classic cause of visible banding. Never thin the material beyond the manufacturer's allowance, and never stretch a part-pail with water.

Trowel on to the grain thickness: steel trowel to lay off, plastic float to texture. Granule grades may be sprayed instead. Consumption is 1.5 to 4.5 kg/m² depending on grade; take off at 2.0 kg/m², about 12.5 m² from a 25 kg pail.

Work to a natural break - a corner, a bead, a movement joint - and keep a wet edge across the whole bay. Do not stop mid-elevation.

Do not apply in direct hot sun, in wind, below 5 C, or with rain forecast inside the drying window. Drying time is 3 to 4 hours. Protect the face until it is through.

CHECK BEFORE MOVING ON

- One batch per elevation; batch numbers recorded
- Wet edge maintained to a natural break - no cold joints mid-wall
- Texture consistent, no trowel-lap shadows in raking light
- Face protected from sun, wind and rain until dry

10. Terminations, waterproofing and handover record

Complete the terminations at head, sill, jamb, parapet and slab edge. Carrying the insulation continuously across the slab edge, ring beam and lintel is the whole point of the system - a bridged slab edge undoes it.

Waterproof exposed horizontal and parapet areas separately with Flexicoat or Weathercoat GP (Weathercoat GP at 2 kg/m², 1.5 mm). Keep a fall of at least 1:75. No ponding on any rendered horizontal surface.

Record and hand over: the EPS grade and thickness actually installed, the adhesive product, the dowel type and the pattern as fixed, the firebreak grade and every horizontal and vertical firebreak position, the mesh laps, the basecoat thickness, and the topcoat grade, colour and batch numbers. If anyone later has to show that the wall is the wall that was certified, this record is what proves it.

CHECK BEFORE MOVING ON

- Drip beads at every soffit, sill and projecting horizontal
- Falls maintained, no ponding
- Insulation continuous across slab edges, ring beams and lintels
- As-built record complete: grades, thicknesses, dowel pattern, horizontal and vertical firebreak positions, batch numbers

FIXINGS AND FASTENERS

Adhesive (board to substrate)	Styrobond DP, or PolyClad Acrylic Plaster mixed 20 kg powder to 5 L polymer (4:1 by weight). Level substrate: full bed with a 10 mm notched trowel. Masonry and uneven substrates: ribbon and dab - a ~50 mm perimeter ribbon plus six dabs ~200 mm across and 10 mm thick per 1200 x 600 board, which covers about half the board back. Minimum bonded coverage is 40%.
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Adhesive - prohibited	Never solvent-based adhesives, bituminous primers, petroleum products or solvent-borne mastics. They dissolve polystyrene.
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Mechanical dowels - rate	5 per m2 nominal, in addition to the adhesive. Both are required. This is a take-off quantity, not a wind design: increase the density at edges, corners and parapets to the engineered pattern, set from the dowel manufacturer's tested characteristic resistances against SANS 10160-3.
Mechanical dowels - masonry	Impact-resistant plastic drive-in dowel, boards 50 mm and thicker. Set flush or slightly recessed - never proud, never over-driven.
Mechanical dowels - timber and light-steel frame	Polyamide retaining disc with a coated thread-cutting screw. Fix into the sheathing board or the frame member, not into the EPS.
Dowels - thermal bridging	Non-metallic pins preferred. A steel-pin dowel is a point thermal bridge straight through the insulation layer.
Reference fixings - Terraco EIFS Alpha tested build-up	EPS: 0.8 mm Class-4 washer with a 6 x 85 mm Class-4 tek screw, through 50 mm FRCel FR100 HD 20DV board bonded with Styrobond DP. External sheathing: 10 mm MgO board on the 0.8 mm galvanised LSF, 8 x 38 mm wing-tek screws at 200 mm centres. Internal lining: Siniat Fire-Check plasterboard, 8 x 32 mm drywall screws.
Reinforcing mesh	Terramesh alkali-resistant glass fibre, 160 g/m2, 4 x 4 mm mesh, 1 m x 50 m rolls (about 45 m2 net of laps). Minimum 100 mm laps. Fully embedded in the wet basecoat, finishing in its outer third, flat and free of folds. Diagonal ~300 x 250 mm patch at every opening corner. Double mesh in impact zones.
System profiles	Starter track (50 or 60 mm, 2.5 m units); PVC mesh-legged corner beads; drip-nose beads at soffits, sills and projecting horizontals; movement beads at structural movement joints.
Mineral-wool firebreaks - horizontal	300 mm wide x 50 mm thick, bonded AND dowelled exactly as the EPS is fixed, onto every floor slab. Reference grade: Technopol 130D StoneWool (about 120 kg/m3, lambda 0.035 W/m.K, reaction to fire A1). Openings: mineral wool with resin content under 5% and minimum 80 kg/m3 at all window and door openings; horizontal breaks at least every third storey.
Mineral-wool firebreaks - vertical	Maximum 5 m spacing in all external systems, and at every division, occupancy and tenancy separating element. Set them out from the project fire design and fix them the same way as the horizontal breaks.

WHAT ACTUALLY GOES WRONG ON SITE

- Leaving the dowels out because the adhesive is holding it. Both are required. Adhesive alone is a wind-load failure waiting for the first storm.
- Treating 5 dowels/m2 as the wind design. It is the take-off quantity. Edge and corner zones need more, and the pattern comes from the dowel manufacturer's tested resistances against SANS 10160-3 for the actual substrate.
- Dabbing the boards without the perimeter ribbon. Six 200 mm dabs cover about a quarter of the board back, against a 40% minimum. The ribbon is what gets you there, and it is what stops air tracking behind the board at the joints.
- Detailing horizontal firebreaks only. Vertical fire breaks are required at 5 m maximum spacing. Set them out before boarding, not after.
- Gluing the mineral wool on without dowels, or trimming the firebreaks out of the price. This is the layer the facade fire performance rests on.
- A board joint running out of a window or door corner. The render will crack along it. Cut the board to wrap the corner and keep joints 200 mm clear of it.
- Forgetting the diagonal mesh patches at opening corners. Count them against the window schedule before the basecoat goes on - you cannot add them afterwards.

- Laying the mesh onto the face of the basecoat and skimming over it, instead of embedding it while the basecoat is wet. If you can see the mesh, it is in the wrong place and it is doing nothing.
- Adhesive squeezed into the board joints. It sets as hard lines that telegraph straight through the render.
- Not rasping the board face flat, then trying to fix a bumpy wall with a thick basecoat. The thick basecoat shrinks and cracks.
- Substituting the EPS grade, the topcoat, the substrate or the firebreak detail on a facade whose fire design relies on the certified build-up. Build it as certified.
- Leaving the EPS exposed to sun for weeks. It yellows and goes chalky, and the basecoat will not bond to it. Rasp back to sound white board.
- Using a solvent-based primer, a bituminous product or a solvent mastic anywhere near the EPS. The board melts at the contact face and nobody finds out for years.
- Running the render down into the ground or into a splash zone. Terminate on the base track with a drip, above the splash line.
- Mixing batches on one elevation, or stopping the topcoat mid-wall and losing the wet edge. Both show as permanent banding.
- Rendering in full hot sun, in wind, in rain, or below 5 C. The face skins, the body does not cure, and it crazes.
- Proud or over-driven dowel heads. Proud heads print through the finish, crushed ones dimple it, and neither can be fixed after the topcoat.
- No drip bead at a sill or soffit. Water runs back under the render and takes the bond with it.
- Ponding on a rendered parapet or horizontal. Keep the 1:75 fall and waterproof it as a separate operation.

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