

CLADDING · TECHNICAL DESIGN GUIDE

Terraco Textured Coatings

The reinforced, weatherproof render skin that decorates and protects a Technopol EIFS wall over EPS insulation.

Overview

Terraco Textured Coatings are a range of ready-mixed, acrylic/silicone resin-bound decorative render finishes that Technopol SA imports from Terraco and applies as the outermost weatherproof skin of an EIFS (External Insulation Finishing System) wall. They are the finish coat, not an insulation product in themselves.

In the Technopol build-up the insulation is a separate Technopol EPS (LiteCel) board; the Terraco materials supply the adhesive, the reinforced basecoat, the glass-fibre reinforcing mesh, the primer and the textured, coloured topcoat that together weatherproof and decorate the facade. The render skin is only a few millimetres thick (a roughly 5 mm reinforced basecoat plus a 0.8-3 mm textured topcoat), so all thermal performance belongs to the EPS behind it, not to the render.

The headline finish is Terracoat Sil, supplied in Excel, Granule and Sahara grades with grain (texture) sizes from 0.8 to 3 mm. The wider distributed range also includes Gravitex textured acrylic, Styrobond embedding mortar, Terramesh mesh, P Primer, Weathercoat/Flexicoat waterproofing and Handycoat fillers.

EIFS is a compact multilayer external-insulation-and-finish solution for improving the energy efficiency of new and existing buildings; it adapts to complex geometry and reduces thermal bridging. Within it, the Terraco coatings provide the decorative, textured, weatherproof outer skin over apartment blocks, offices, renovations and homes.

Key specifications

Property	Value	Standard
Product type / build-up	Ready-mixed acrylic/silicone resin-bound textured render; reinforced weatherproof outer skin of an EIFS wall (Terracoat topcoat over Styrobond DP basecoat + Terramesh mesh on EPS board)	—
Finish grades & grain (texture) size	Excel / Granule / Sahara — 0.8 to 3 mm	—
Thermal conductivity (λ) / R / U	Not applicable — the coating is the finish skin, not the insulation; λ belongs to the separate EPS board	—
Specific gravity (wet coating)	1.65–1.70 (Excel 1.70; Granule / Sahara 1.65)	—
Adhesion / pull-off bond strength	>2.0 N/mm ²	—
Water resistance	Sd <0.10 m (vapour-permeable); W24 <0.15 kg/m ² ·h ^{0.5} (liquid-water uptake)	—
Reaction to fire (coating itself)	Flame Spread Class 0	ASTM E84
Fire performance (full EIFS system)	PASS — temperature, flame-spread & mechanical criteria (facade fire-spread; a reaction-to-fire result, not a fire-resistance rating)	SANS/BS 8414-2:2017

Materials & build-up

Terraco Textured Coatings are the finish and reinforcement layers of a wet-applied EIFS wall. Working from the substrate outward, the documented Technopol EIFS system components are:

- Terraco Styrofix - adhesive used to bond the Technopol EPS (LiteCel) board to the substrate.
- Technopol EPS (LiteCel) insulation board - the insulation; a separate product, not part of the coating range, with thickness chosen for the required thermal performance.
- Mechanical fasteners - plastic fasteners with plastic or steel pin dowels, fixing the EPS and resisting wind shear at higher levels.
- System profiles - accessories for strengthening and finishing edges, window/door openings and sills.
- Terraco Styrobond DP - the reinforced basecoat, applied at about 5 mm (1.7 kg/m² per mm), into which the reinforcing mesh is embedded.
- Terraco Terramesh - glass-fibre reinforcing mesh fully embedded in the basecoat.
- Terraco P Primer - a substrate-penetrating primer.
- Decorative finish - the textured, coloured topcoat (e.g. Terracoat Sil or Gravitex), sometimes finished with a clear or pigmented top coat.
- Headline topcoat Terracoat Sil is a ready-mixed acrylic/silicone resin-bound textured coating in three finishes: Excel (alpine/scratch texture), Granule (granular texture) and Sahara.

Applications

EIFS is a compact multilayer external-insulation-and-finish solution used to improve the energy efficiency of new and existing buildings, adapting to complex building geometry and eliminating most thermal bridging.

Within the system the Terraco coatings provide the decorative, textured, weatherproof outer skin. The Terracoat Sil finish is stated to adhere to a range of exterior and interior surfaces.

- Typical projects: apartment complexes, office buildings, home renovations and single-family homes.
- Stated substrates for Terracoat Sil: EIFS render basecoat, masonry, plywood, chipboard, anti-rust primed steel, gypsum and dry wall.

Technical properties (Terracoat Sil finish coat)

The following are verified figures from the Terracoat Sil technical datasheet and Technopol material calculators. All values are for the wet coating; the render is the finish skin and has no insulation (λ /R/U) value of its own.

- Product type: ready-mixed, acrylic/silicone resin-bound textured coating.
- Finish grades and grain size: Excel / Granule / Sahara, 0.8 to 3 mm grain.
- Specific gravity (wet coating): 1.70 (Excel); 1.65 (Granule / Granule Filled / Sahara) - a dimensionless wet-coating value, not an insulation density.
- Adhesion / pull-off bond strength: greater than 2.0 N/mm².
- Water vapour permeability (Sd-value): less than 0.10 m (vapour-permeable).
- Liquid water transmission (W24): less than 0.15 kg/m².h^{0.5}.
- Viscosity 35,000-45,000 cps; drying time 3-4 hours.
- Material consumption: 1.5-4.5 kg/m² by grade (Technopol calculator uses about 2.0 kg/m²; 25 kg pack about 12.5 m²).
- Colours: 50 standard colours.

Installation & handling

Terracoat is trowel-applied; the Granule finish may also be spray-applied. Waterproofing coatings (Weathercoat/Flexicoat) are measured and applied separately from the textured finish.

- Build sequence: Styrofix adhesive plus mechanical fasteners fix the EPS board; a Styrobond DP basecoat is applied and the Terramesh mesh fully embedded in it; a penetrating primer is applied; then the textured decorative topcoat.
- Mechanical fixing rate: 5 EPS fasteners per m² in addition to the adhesive (fasteners also resist wind shear at higher levels).
- Basecoat: Styrobond DP at about 5 mm (1.7 kg/m² per mm).
- Topcoat coverage: about 2.0 kg/m² typical (25 kg pack about 12.5 m²); grade-dependent 1.5-4.5 kg/m².
- Drying: Terracoat dries in 3-4 hours.
- Firebreaks: in the tested fire-rated build-up, StoneWool firebreaks are applied at each floor slab.

Dimensions & availability

Terracoat Sil is supplied in graded packs by finish and grain size; the reinforcing mesh and system layers are ordered separately.

- Terracoat Sil grades/codes: Excel 1/1.5/2/3 mm (61468/61437/61413/61472); Granule 0.8/1/1.5/2 mm (61476/61423/61501/61482); Granule Filled 1.5 mm (61924); Sahara 1/1.5/2 mm (61653/61545/61616).
- Grain (texture) sizes: 0.8-3 mm. Colours: 50 standard.
- Pack size: 25 kg. Shelf life: 12 months in original, unopened containers.
- Terramesh: 50 m x 1 m rolls (about 45 m² per roll).
- Guarantee: the full EIFS system carries a 12-year installer guarantee (a commercial warranty, not a material property).

Fire behaviour (read carefully)

Two separate and distinct fire results apply and must not be conflated; neither is a fire-resistance (REI/minutes) rating.

First, the Terracoat Sil coating on its own carries an ASTM E84-81H 'Flame Spread Class 0' result - a surface-spread-of-flame classification for the coating only. No EN 13501-1 / SANS 53501-1 Euroclass is assigned to the Terraco coatings in any reviewed document.

Second, the complete Terraco EIFS Alpha System was tested to SANS/BS 8414-2:2017 and passed the temperature, flame-spread and mechanical criteria of BR 135:2013, LPS 1852:2014 and AS 5113:2016 (report FTC 21/033, Issue 1, 22 June 2021) - the basis for Technopol's 'first South African system to pass BS 8414-2' claim.

- The 8414-2 pass is for one exact assembly: pigment primer + Terraco Granule Filled 1.5 mm Sil, over Styrobond DP + Terramesh on 50 mm Technopol LiteCel FRCel EPS (Grade FR100) with Technopol 130D StoneWool firebreaks, on a fire-resistant LSF backing wall.
- It is a facade fire-spread (reaction-to-fire) result, NOT a fire-resistance (REI/FRR) rating; the inner wall must separately achieve its required fire-resistance rating per SANS 10177-2.
- The system may only be installed exactly as tested; a masonry substrate would require a separate SANS 8414-1 test.
- EPS is combustible; the pass reflects the whole assembly (including the StoneWool firebreaks and fire-resistant backing wall), not the EPS or coating alone.
- Report validity is 5 years from 22 June 2021 (lapses about 22 June 2026) or upon any system change; the test excludes glazed openings, curtain walling and glass panels, which must comply with SANS 10400-T.

Design considerations & limitations

- Not an insulant: the coating is the finish/reinforcement skin. Thermal conductivity (λ), R- and U-values belong to the separate EPS/mineral-wool board - do not attribute any thermal value to the render.
- Fire scope is narrow: the SANS 8414-2 pass applies only to the exact tested assembly (specific EPS grade, StoneWool firebreaks, fire-rated backing wall and the pigment-primer + Granule Filled 1.5 mm Sil finish). Substituting components, or installing on masonry, voids the result.
- The 8414-2 pass is a reaction-to-fire / facade fire-spread result, not a fire-resistance rating; no REI (minutes) rating is established for any wall using these coatings - the inner wall's FRR must be set separately per SANS 10177-2.
- EPS is combustible; the system relies on firebreaks and detailing (vertical breaks recommended) for its facade fire performance.
- Report validity of FTC 21/033 is 5 years from 22 June 2021 (nominally lapsing about 22 June 2026) or upon any system change; re-testing/renewal should be confirmed before specifying, and the current renewal status is not established in Technopol sources.
- No Agreement / BBA / ETA certificate in the corpus covers the Terraco coating or the EIFS render system. Agreement SA 2020/609 covers the LiteCore Building System only and must not be presented as covering this product.
- No EN 13501-1 / SANS 53501-1 Euroclass (e.g. B-s1,d0) is assigned to the coatings; only ASTM E84 'Flame Spread Class 0' is stated for Terracoat Sil.
- Missing datasheets: Gravitex, Styrobond DP, Weathercoat/Flexicoat, Handycoat, P Primer and the Terramesh mechanical properties are not fully documented in the corpus - request current manufacturer datasheets before detailed specification.
- No single documented total-render-thickness figure exists; only a roughly 5 mm Styrobond DP basecoat plus a 0.8-3 mm textured topcoat grain are recorded.
- Datasheet data is for Terracoat Sil only; SG, adhesion and vapour-permeability for the acrylic (non-silicone) Terracoat and for Gravitex are not available.
- Substrate and interface detailing at openings, glazing, curtain walling and glass panels is outside the SANS 8414 test scope and must be designed to SANS 10400-T; the 12-year guarantee is commercial, not a material property.
- Company ISO 9001:2015 is current, but ISO 14001 and ISO 45001 lapsed in March 2026; these are company management-system certifications, not product certifications for the coating.