

Stone Seal Trowel

High-performance architectural mineral flooring system

A high-performance architectural mineral flooring system, installed from 10 mm (10–30 mm) over a prepared receiving substrate. Placed by hand and finished with a power trowel finish.

SPECIFICATION SUMMARY — STONE SEAL TROWEL

System: Stone Seal Trowel high-performance architectural mineral flooring system, supplied, installed and sealed by Stone Seal Ireland, Unit 10 Wilsborough Business Park, Clonsaugh, Dublin 17, D17 VN12 · T +353 (0)1 877 0436 · www.stonesseal.ie

Thickness: [10] mm (range 10–30 mm), over a receiving substrate prepared to the Stone Seal specification.

Colour: [TBD], agreed against approved sample panel ref. [TBD].

Performance: C80 / F20 – EN 13813 · AR0.5 – EN 13892-4 (BCA) · A1fl – EN 13501-1 · PTV ≥36 (Wet) – ASTM E303 on the satin–semi-gloss finish, verified by post-installation testing.

Joints: joint-free up to 600 m²; master, structural and movement joints carried through the flooring system where present.

Credentials: EMICODE EC1 PLUS · EPD DAP 002:2023 (EN 15804+A2).

1 Application

Stone Seal Trowel is installed by Stone Seal's own team as a controlled system: substrate survey and assessment, preparation, repair and levelling, primer selection, controlled installation, refinement, sealing and protection.

It delivers the character of coloured polished concrete – specified colour with natural tonal movement, visible trowel character and little or no intentional aggregate exposure – independently of constructing and polishing a new concrete slab.

2 Description

Stone Seal Trowel is a high-performance architectural mineral flooring system, placed by hand and finished with a power trowel from 10 mm. It delivers the material character of concrete with specified colour, natural tonal movement and little or no intentional aggregate exposure, working across prepared existing and new substrates a conventional polished-concrete slab may not practically reach.

Features and benefits

- Installed from 10 mm (10–30 mm range)
- Joint-free up to 600 m² (see Movement and joints)
- Colour is specified, not revealed: selected colour delivered with natural tonal movement within that colour

- Hard-wearing mineral wearing surface for interior floors in public, commercial and residential projects
- Smooth, cement-rich finish with visible trowel movement and little or no intentional aggregate exposure
- Minimum wet PTV 36 (ASTM E303) on the satin–semi-gloss finish; verified by post-installation testing
- Shrinkage $\leq 800 \mu\text{m/m}$ (EN 13454-2); formulated for controlled dimensional behaviour
- Light traffic after 2 days; heavy traffic after 5 days (product guidance, not project programme)
- Environmental Product Declaration DAP 002:2023, prepared to EN 15804+A2
- CE marked (DoP DDSBEXTL0012.16); A1fl reaction to fire – EN 13501-1
- EMICODE EC1 PLUS

General information

Finish – Coloured mineral floor with concrete character.

- Bespoke power-trowelled finish
- Specified colour with natural tonal movement
- Handcrafted installation process
- Matt, satin or gloss finish, agreed at sample stage

Approved appearance – Stone Seal Trowel delivers a specified colour with natural tonal movement within that colour. The finish is designed for little or no intentional aggregate exposure. An approved sample panel establishes the agreed reference for colour, sheen and general surface character.

Material – Two-component cement-based mineral topping. C80 compressive / F20 flexural (EN 13813, tested to EN 13892-2). AR0.5 abrasion (EN 13892-4, BCA). 1–2 mm micro-aggregate; no coarse stone.

Substrate – Stone Seal Trowel can be installed over a range of appropriately prepared, mechanically sound and stable receiving substrates. The suitability of each substrate and its required preparation, build-up, priming and movement strategy is assessed as part of the flooring specification.

3 Movement and joints

Stone Seal Trowel is joint-free up to 600 m². Master, structural and movement joints must be respected and carried through the flooring system where present.

Stone Seal Trowel delivers concrete character without introducing the shrinkage-related cracking risk of a newly poured concrete slab. Genuine structural joints are detailed through the flooring system where required.

4 Measurements

- Length – Bespoke
- Width – Bespoke
- Thickness – 10–30 mm, minimum 10 mm



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5 Specification data

Description	Values
Colour	Bespoke to the project, or selected from the Stone Seal Trowel colour range; agreed against an approved sample panel
Material	Two-component cement-based mineral topping
Compressive strength	C80 – 80 N/mm ² – EN 13813, tested to EN 13892-2
Flexural strength	F20 – 20 N/mm ² – EN 13813, tested to EN 13892-2
Abrasion resistance	AR0.5 – EN 13892-4 (BCA)
Reaction to fire	A1fl – EN 13501-1
Shrinkage	≤ 800 µm/m – EN 13454-2
Slip resistance	PTV ≥36 (Wet) – ASTM E303, satin–semi-gloss finish; verified by post-installation testing
Joint-free area	Up to 600 m ² without intermediate contraction joints; master, structural and movement joints respected
Thickness of application	10–30 mm; minimum 10 mm
Installed weight	Approx. 25–26 kg/m ² at 10 mm
Sealing	To the Stone Seal specification
Open to traffic	Light 2 days – heavy 5 days (product guidance, subject to curing, protection and site conditions)

Slip resistance: Stone Seal Trowel can be refined and sealed to specification to achieve a Pendulum Test Value (PTV) ≥36 (Wet) in accordance with ASTM E303 on the satin–semi-gloss finish. Slip resistance can be specified according to the intended use and final surface treatment, with final performance verified by post-installation testing.

6 Specification clause

Stone Seal Trowel architectural mineral flooring system, installed by Stone Seal.

- Thickness: [10] mm (range 10–30 mm).
- Colour: [], agreed against approved sample panel ref. [].
- Sheen: [], agreed at sample stage.
- Receiving substrate: assessed and prepared to the Stone Seal specification, including preparation, repair, levelling, priming and movement strategy.
- Joints: master, structural and movement joints carried through the flooring system where present.
- Sealing and protection: to the Stone Seal specification.

Receiving substrates (by others, where applicable)

- E10/105 Designated concrete
- E10/110 Basic designated concrete
- M10/130 Proprietary quick-drying levelling screeds

7 Design and specification guidance

Finished floor level: Establish the Stone Seal finish allowance and true finished floor level first; screed, levelling, thresholds and transitions are coordinated backwards from that datum.

Sample approval: An approved sample panel, referenced in the project documentation, establishes the agreed colour, sheen and general surface character.

Receiving substrate: Surveyed and assessed by Stone Seal for stability, integrity, moisture, cracks, joints and level before the build-up is confirmed.

Maintenance: Maintenance guide available on request.

Design-stage support: Stone Seal reviews build-ups, substrates, thresholds, movement joints and details at design stage, and provides samples and colour development.

Colour: Bespoke to the project, or selected from the Stone Seal Trowel colour range. Samples available at the Stone Seal showroom, D17 VN12.

8 Environmental credentials

Environmental Product Declaration DAP 002:2023, prepared to EN 15804+A2, valid until 17 October 2028. Supports lifecycle assessment and sustainability review.

Very low emission: EMICODE EC1 PLUS.

Construction strategy: A mineral wearing surface installed from 10 mm can support retention of existing floor construction and avoid a full-depth new concrete slab, where the receiving substrate permits.

9 Limitations

Interior use only. Not for installation over damp substrates or in areas subject to persistent water saturation, freezing conditions or de-icing salts.

10 Certifications

- EMICODE EC1 PLUS
- Environmental Product Declaration DAP 002:2023 – EN 15804+A2 – valid until 17 October 2028
- CE marked – Declaration of Performance DDSBEXTL0012.16
- A1fl – EN 13501-1, the highest reaction-to-fire classification available for flooring

Component certificates available on request. **Warranty:** terms confirmed at tender.