

# PebbleCrete Pool Finish

Exposed-aggregate finish for swimming pools · PebbleCrete Classic, Supreme and Glass

DOCUMENT  
Technical Data Sheet (TDS)

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**REVISION 2026-10 — 24 OCTOBER 2026** This revision supersedes all previous editions of the technical data sheets for PebbleCrete Classic, PebbleCrete Supreme and PebbleCrete Glass, in every language. Where an earlier edition of this document states otherwise, this revision applies. It does not change the PebbleCrete Material Warranty, any warranty document already issued, or any written contract signed by PEBBLE CRETE CO., LTD. Always confirm you are using the current revision at [pebblecrete.com](https://pebblecrete.com) before work begins; we supply a copy of the current revision free of charge on request.

## 1 Product description

PebbleCrete is a decorative, cement-based exposed-aggregate finish for swimming pools. It is formed on site: our aggregate is mixed with white Portland cement bought locally, our cement modifier and, for pigmented colours, a pre-weighed pigment pack, applied over a prepared pool shell, a rigid cementitious suction-control coat and a bond coat at a nominal 10 mm, compacted by trowel as one continuous layer, with no tile grout lines within the finish, and washed while green to expose the aggregate.

**There is no cement in the aggregate bags.** The white Portland cement — one 40 kg bag for every three 25 kg bags of aggregate, about a third of the dry weight of the finished mix — is bought locally by the applicator, so no freight is paid on it.

| Product line        | Character                                                            | Aggregate fraction | Supplied as |
|---------------------|----------------------------------------------------------------------|--------------------|-------------|
| PebbleCrete Classic | Exposed aggregate finish                                             | 1–3 mm             | 25 kg bags  |
| PebbleCrete Supreme | Glass beads in every blend, with natural aggregate or glass crystals | 1–3 mm             | 25 kg bags  |
| PebbleCrete Glass   | Exposed glass finish, glass beads only                               | 1–3 mm             | 25 kg bags  |

**Scope.** This data sheet covers the concrete pool shell — walls, floor and steps; fibreglass (GRP), vinyl-lined and other non-cementitious shells are outside the system. Benches, coping and surfaces outside the waterline need a separate project specification; the figures in this document are not to be applied to them without it. As a minimum, the finish there is not thinner than three times the nominal upper grain size — **at least 9 mm** for the 1–3 mm fraction. PebblePure by PebbleCrete (filter media) is a different product and is not covered here.

The aggregate is screened (washed where required) to a fraction of **1–3 mm**, with not more than 10 % by mass coarser than 3 mm and not more than 10 % by mass finer than 1 mm. It is natural aggregate, glass (glass crystals / glass beads), or a blend of the two, depending on the product line and colour — a processed material, not a laboratory-purified one: trace inclusions inherent to natural aggregate, and variation between batches in the natural aggregate and the glass, are normal. Naturally occurring iron oxides bound within the natural aggregate are part of its colour.



## 2 Supply and packaging

| Component                                | Rate and packaging                                                                                                                     | Notes                                                                    |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Aggregate</b>                         | 25 kg bag, nominal; average net weight per bag of one production batch not less than 24.5 kg                                           | 40 bags per pallet where palletised                                      |
| <b>Cement modifier — dry (Thailand)</b>  | <b>500 g per 25 kg bag</b> of Classic or Supreme (1.5 kg per batch)<br><b>1 kg per 25 kg bag</b> of PebbleCrete Glass (3 kg per batch) | Cement-based powder. Packing date printed on every pack                  |
| <b>Cement modifier — liquid (export)</b> | <b>500 mL per 25 kg bag</b> of Classic or Supreme (1.5 L per batch)<br><b>1 L per 25 kg bag</b> of PebbleCrete Glass (3 L per batch)   | Contains no cement. Packing date printed on every pack. Store at 5–35 °C |
| <b>Pigment</b>                           | One pre-weighed pack per batch, where the colour includes one                                                                          | The pack is the dose — no weighing on site                               |
| <b>Primer pigment</b>                    | For coloured work: one additional standard pigment pack per 40 m <sup>2</sup> supplied                                                 | For colouring the primer, see 6                                          |
| <b>White Portland cement</b>             | Not supplied — 40 kg per batch (in Thailand, one 40 kg bag), bought locally                                                            | Specification in 3.2 — alkali limit and alkali evidence required         |

**NOTE** The dry and the liquid modifier are **different products** and their doses are not interchangeable by unit. The modifier supplied with your consignment is named on the delivery note.

## 3 Mix and yield

### 3.1 One batch

| Ingredient                   | Quantity per batch                                                                                                                                                                            |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PebbleCrete aggregate</b> | 3 bags × 25 kg = 75 kg                                                                                                                                                                        |
| <b>White Portland cement</b> | 1 bag × 40 kg — alkali limit and alkali evidence required, see 3.2                                                                                                                            |
| <b>Cement modifier</b>       | Dose per 25 kg bag as in section 2, for all three bags                                                                                                                                        |
| <b>Pigment</b>               | Where the colour includes one: one pre-weighed pack (whole pack, never split), dispersed first in 3–5 L of the mixing water                                                                   |
| <b>Water</b>                 | Approximately 18 L in total, including the pigment water — a starting point, not a ceiling; adjust to consistency in small additions, and do not add water to a mix that has begun to stiffen |
| <b>Proportion by mass</b>    | One part white cement to 1.875 parts aggregate (40 kg : 75 kg)                                                                                                                                |

| Property               | Value                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Batch yield</b>     | Approximately 5.4 m <sup>2</sup> at 10 mm                                                                                                          |
| <b>Coverage</b>        | Approximately 1.8 m <sup>2</sup> per 25 kg bag at 10 mm (nominal, for estimating)                                                                  |
| <b>Order allowance</b> | Add 5 % for error and overuse, then round up to whole batches of three bags for each colour                                                        |
| <b>Pot life</b>        | About 1 hour — do not mix more than the crew can place in that time                                                                                |
| <b>Mixing</b>          | Drill-mounted Jiffy-type mixer at low speed: one batch. Mixing station: three batches. A power mixer is strongly recommended for pigmented colours |

**Water governs colour.** Walls take a drier, stiffer mix; floors a more mobile one. Within one surface, use the same water in every batch, and do not finish material left over from one surface on another.



### 3.2 White Portland cement

White Portland cement conforming to **TIS 133-2562** (มอก. 133-2562), supplied in sealed 40 kg bags bearing the packing date required by clause 6.1(3) of that standard. Check the standard number printed next to the TIS mark on the bag: it must read 133-2562. Key characteristics of the standard:

| Characteristic                                                     | Requirement                                                   |
|--------------------------------------------------------------------|---------------------------------------------------------------|
| Whiteness index (WI)                                               | Not less than 90 (illuminant D65, 10° observer)               |
| Iron (III) oxide, $\text{Fe}_2\text{O}_3$                          | Not more than 0.4 % by mass                                   |
| Total alkalis ( $\text{Na}_2\text{O} + 0.658 \text{K}_2\text{O}$ ) | Not more than 0.6 % by mass                                   |
| Compressive strength                                               | Not less than 12.0 / 19.0 / 28.0 MPa at 3 / 7 / 28 days       |
| Setting time                                                       | Initial not earlier than 45 min; final not later than 375 min |

**ALKALI LIMIT** White Portland cement with a total alkali content of  $\text{Na}_2\text{O}$  equivalent  $\leq 0.60$  % ( $\text{Na}_2\text{O} + 0.658 \text{K}_2\text{O}$ ). In Thailand, cement bearing the TIS 133-2562 mark meets this limit: keep a photograph of the bag marking, with the packing date, with the job records. Elsewhere, ask the cement supplier for the mill certificate of the lot used, or a data sheet stating the alkali content, and keep it with the job records.

**Outside Thailand:** white Portland cement to ASTM C150/C150M Type I (white) or, where the project requires European standards, a white CEM I to EN 197-1 as a separate alternative, meeting the same whiteness, iron-oxide and alkali figures, with a mill certificate for the lot used. Where white cement is not sold in 40 kg bags, weigh 40 kg for each batch: the pigment dose is set for 40 kg of cement. Use one cement manufacturer — where possible one production batch — for one pool. Reference product used in development: Tiger Brand Décor Terrazzo white Portland cement (SCG).

## 4 Thickness and substrate

| Parameter                | Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applied thickness        | 10 mm nominal; tolerance 9–11 mm. The minimum is three times the nominal upper grain size (3 mm); below 9 mm the grains are no longer fully encased                                                                                                                                                                                                                                                                                                                                       |
| Embedded fittings        | Set to protrude 10 mm beyond the finished face of the upper bond coat, i.e. flush with the finished surface                                                                                                                                                                                                                                                                                                                                                                               |
| Layer order              | Concrete shell (cured 28–30 days) → bond coat → render (cured the longer of 10 days or 7 days per cm) → bond coat, smooth → suction-control coat → bond coat → primer (walls only, see 6) → PebbleCrete                                                                                                                                                                                                                                                                                   |
| Suction-control coat     | weberdry tex (Weber); not a waterproofing membrane. Outside Thailand: an equivalent non-flexible (rigid) cementitious suction-control coat meeting Method Statement 5, accepted by PEBBLE CRETE CO., LTD. in writing before use                                                                                                                                                                                                                                                           |
| Bond coat                | webertai gres (Weber) or Terraco Terrafix W22, or an equivalent C1/C2 adhesive, not S1/S2, with tensile adhesion after water immersion $\geq 1.0 \text{ N/mm}^2$ and stated for immersed pools (Method Statement, 6.1); 2–3 mm, grey, about 10 m <sup>2</sup> per 20 kg bag per coat; finish once it is matured and firm, no longer tacky, with a sound surface free of dust and loose material, and not later than 72 hours after it is applied; after 72 hours, apply a fresh bond coat |
| Substrate at application | Structurally sound, fully cured, clean; cool and damp, without standing water                                                                                                                                                                                                                                                                                                                                                                                                             |

Full requirements are in the PebbleCrete Method Statement, Rev 2026-10.

## 5 Application conditions

| Condition                 | Requirement                                                  |
|---------------------------|--------------------------------------------------------------|
| Material and all surfaces | 10–38 °C, for 24 hours before and 72 hours after application |



| Condition                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Air temperature</b>        | Above 38 °C apply only with the hot-weather measures (Method Statement, 11.1): pre-soak the substrate, leaving no standing water; start early in the morning and avoid the hottest part of the day; tent the pool and screen it from sun and wind; cool the mix with cold water and shaded, covered materials; increase the number of experienced applicators; apply from the shaded walls towards the sunlit walls and expose in the opposite order |
| <b>Evaporation</b>            | Do not apply while the calculated evaporation rate exceeds 1.0 kg/m <sup>2</sup> /h (ACI 305R nomograph); bring it to 1.0 or below with the hot-weather measures. This threshold is not conservative for a thin section: cracking is possible below it                                                                                                                                                                                               |
| <b>Rain</b>                   | Do not apply if rain is expected within 24 hours after application                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Ground water</b>           | Shell free of water ingress from outside at application and until filling; hydrostatic relief as designed by the pool designer; do not drain the pool when the groundwater table is high (Method Statement, sections 4 and 14)                                                                                                                                                                                                                       |
| <b>Substrate, hold points</b> | Tape test (Method Statement, 4.2); pre-wetted to saturated-surface-dry (SSD) — damp, no standing water; no film-forming primer under the suction-control coat; no flexible coatings. H1 — suction-control coat accepted; H2 — bond coat ready (Method Statement, 4)                                                                                                                                                                                  |
| <b>Order of work</b>          | Steps, then walls, then floor. Apply from shaded walls towards sunlit ones                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Colour judgement</b>       | Colour is not assessed under artificial light                                                                                                                                                                                                                                                                                                                                                                                                        |

## 6 Primer, exposure and acid wash — summary

- **Primer.** A slurry of white cement and water of thick, creamy consistency is applied to the walls with a trowel or a roller just before the finish; the finish is laid into it about 5–10 minutes later, while it is still wet and tacky. On coloured work the primer is pigmented to match the finish: one additional pigment pack per 40 kg bag of cement. About 1 kg of cement per m<sup>2</sup>, so one bag primes about 40 m<sup>2</sup>. Match the primer to the finish that goes over it, not to the project: where one pool has more than one finish colour, each takes its own primer colour.
- **Compaction.** The trowel compacts; it does not smooth. Minimum three cycles, and the same number of passes across one surface.
- **Exposure** is judged by fingerprint, not by the clock. Normal exposure: grains stand proud by about one quarter of their diameter, matrix intact. Grains standing proud by more than one third of their diameter and beginning to dislodge are over-exposure — an application defect. Exposure is assessed visually against the approved mock-up, in daylight, surface wet.
- **When exposing the finish, no roller or sponge** on coloured material: they remove water unevenly and cause patchiness.
- **Acid wash** the day after the whole pool is laid: hydrochloric acid at 10 % by mass as applied by default; 15–17 % only where laitance was poorly removed. Dilute the acid you buy to this strength — its own strength is on its label. Never undiluted. Rinse thoroughly and dispose of the wash water in accordance with local rules (Method Statement, 12).

## 7 Curing, filling and start-up — summary

**Washing, filling and starting the system are one operation on one day**, the day after the whole pool has been laid. Filling neutralises residual acidity after washing, keeps the finish wet while it matures, and protects it from drying, overheating and contamination from adjacent works.

**WARNING** If the pool is not ready to be filled, do not acid wash — wait until it is.

If washing has been done but filling is impossible, continuous misting and a drainage pump are required for at least seven days. This limits damage; it does not replace filling.



| Water parameter                    | Value                                                                                                                        |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| pH                                 | Target 7.6–7.8; working range 7.2–7.8                                                                                        |
| Free chlorine — liquid or trichlor | 1–3 ppm                                                                                                                      |
| Free chlorine — salt chlorinator   | 1–3 ppm                                                                                                                      |
| Total alkalinity                   | 80–120 ppm                                                                                                                   |
| Calcium hardness                   | 200–400 ppm, salt pools included                                                                                             |
| Cyanuric acid                      | 30–50 ppm                                                                                                                    |
| Langelier Saturation Index (LSI)   | 0.0 to +0.3 — the governing parameter. For public and commercial pools, national bathing-water rules prevail over this table |
| First chlorination                 | 36 hours after filling is complete                                                                                           |
| Salt                               | Not on first fill; after 28–30 days, within the chlorinator manufacturer's range (typically 3000–4500 ppm)                   |
| Sequestrant                        | Required at start-up                                                                                                         |

**WARNING** Never place chlorine in any form — granules, tablets or liquid — directly on the finish: the damage is permanent. Dose through a balance tank or, at minimum, the skimmer, and add every treatment chemical only by a method permitted by both the chemical supplier's and the equipment manufacturer's instructions.

## 8 Storage and shelf life

| Item                            | Shelf life and storage                                                                                                               |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Aggregate                       | Contains no binder and has no expiry date. Keep covered, off the ground, dry and out of direct sunlight                              |
| Cement modifier (dry or liquid) | <b>12 months from the packing date</b> printed on the pack, in the original sealed pack. The modifier sets the shelf life of the kit |
| Dry modifier                    | Moisture-sensitive: keep packs sealed, dry and off the ground                                                                        |
| Liquid modifier                 | Store at 5–35 °C                                                                                                                     |
| Pigment packs                   | Keep sealed and dry; use each pack whole                                                                                             |

## 9 Cleaning

Clean all tools and equipment promptly with clean water, before the material sets. Do not use detergents or soap on the substrate before application: they can leave a film that causes bonding failure.

## 10 Colour

Colours are produced to our standard recipes, with one pre-weighed pigment pack per batch where the colour includes one. Images and illustrative loose samples indicate colour family and texture only, and a difference between the finished surface and a sample, a swatch or a previous pool is not a defect of the material: the shade of a finished surface depends on the cement, the water added, the application, the acid wash and the water chemistry. Where an order is placed against an approved dry material sample, the PebbleCrete Material Warranty governs conformity of the dry material to that sample. Before work begins, the applicator makes an on-site mock-up (site sample panel) of the actual mix and finish, and the client approves it in writing on the Mock-up approval record, in daylight with the surface wet. The approved mock-up is the reference for the appearance of the installed finish; it is not a material-warranty reference. Natural aggregate varies between production batches; order the material for one surface from one production batch.



## 11 What we do not claim

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- **Slip resistance.** We make no slip-resistance claim for this material or any finish made from it. Handrails, supervision and a cleaning schedule remain necessary regardless of the finish.
- **Joints and cracks.** The finish is laid as one continuous layer with no tile grout lines within it, but it is not joint-free or crack-free. Planned stops, and on large pools tile lines between work sessions (Method Statement 8.1), form joints in it.
- **Texture.** An exposed-aggregate finish is textured, not smooth; how smooth it is depends on compaction, exposure and the optional smoothing steps of Method Statement 12.1. The approved mock-up is the reference for its texture on the project.
- **Service life.** No service life is stated.
- **Freezing.** No claim is made for performance in freezing conditions.
- **Other functions.** A decorative finish, not a structural repair material; it does not make the pool watertight. Watertightness is provided by the pool shell and is the responsibility of its builder.
- **Installation.** We supply material and technical documentation; we do not install and do not supervise installation unless agreed in writing, and we do not certify or control work by others.
- **Figures.** A figure given with a tolerance or as a limit is a requirement. A figure introduced by "approximately" or "about" is a description or a planning estimate, not a guaranteed result.

## 12 Warranty

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**PEBBLE CRETE CO., LTD. warrants the material only**, from delivery, under the PebbleCrete Material Warranty — Rev 2026-09 (supplied on request). We give no warranty on installation, on workmanship or on the finished pool surface, and no system warranty. Any warranty on the finished pool is one the installer elects to give, on its own terms and in its own name. Coverage figures are nominal and are not a warranty of the quantity a given area will require; this does not affect the material warranty on net weight.

PEBBLE CRETE CO., LTD. supplies the material. Installation, site supervision, the on-site mock-up and acceptance of the finished work are undertaken by the responsible project parties. Any additional service by PEBBLE CRETE CO., LTD. must be defined in a separate written agreement, which states the resulting responsibilities and any effect on the Material Warranty.

## 13 Health and safety

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- **Dust.** The natural aggregate may contain crystalline silica. Dust from dry handling, cutting, grinding or dry sweeping can contain respirable crystalline silica, which can cause silicosis and other serious lung disease and is recognised as a human carcinogen. Do not dry sweep or dry cut; keep material damp or use extraction; wear a properly fitted particulate respirator, eye protection and gloves.
- **Wet cement mixes are strongly alkaline** and can cause severe chemical burns, sometimes without pain at the time of contact. Prevent all skin contact: impervious gloves, long sleeves, boots sealed at the top, impervious knee pads. Skin: wash immediately with plenty of clean water. Eyes: rinse immediately with clean water for at least 15 minutes, holding the eyelids open, then obtain medical attention.
- **The dry cement modifier is a cement-based powder** (see its safety data sheet). Avoid raising and breathing its dust; wear eye protection, impervious gloves and a P2 or N95 particulate respirator when opening the packs and adding them to the mix. The liquid modifier contains no cement and is not classified as hazardous; wear eye protection against splashes and gloves for prolonged contact (see its safety data sheet).
- **Acid:** add acid to water, never water to acid; never mix acid with chlorine products. Follow the safety data sheet of the acid and of the cement you buy locally.
- Keep out of reach of children. Do not take internally.

**Safety data sheets** (GHS, Rev 2026-10, on request): PebbleCrete Pool Finish Aggregate — SDS; PebbleCrete Liquid Modifier — SDS; PebbleCrete Dry Cement Modifier — SDS.



## 14 Status of this document

This data sheet is technical information on our material. It is not an offer and not a contract. This document describes the product and its method; it is not by itself a construction contract specification — project specifications should reference it by revision. A model specification is published as PebbleCrete Specification — Section 13 11 00 — Rev 2026-10. No figure in this data sheet is a contractual acceptance criterion as against PEBBLE CRETE CO., LTD., except as the PebbleCrete Material Warranty — Rev 2026-09 provides for the material supplied, or as expressly incorporated in a written contract signed by PEBBLE CRETE CO., LTD. This data sheet does not create, extend or vary our warranty. Where this data sheet and the Method Statement differ, the Method Statement applies. The figures are our own production and application parameters and are correct to the best of our knowledge at the date of this revision; where a change affects the properties described here, we issue a new revision.

Nothing in this document excludes or limits liability for death or personal injury, for fraud, wilful misconduct or gross negligence, or any liability that cannot be excluded or limited under the applicable law, including, in Thailand, the Act on Liability for Injuries from Unsafe Products B.E. 2551. Where this document is issued in more than one language, the English text prevails.

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