CERAMIC-HYBRID FLOOR COATINGS

PrimeBond CH145-S

TWO-PART PRIMER FOR WEAK OR AGED CONCRETE

Rayson PrimeBond CH145-S is a two-part primer that consolidates weak, dusty or aged concrete and anchors the ceramic-hybrid (CH) colour and clear coats to it.

CH145-S is mixed 3:1 by weight and applied undiluted at about 0.15 kg/m². It is the primer for older or weaker slabs where a single-pack primer is not enough, and the base coat for clear TopShield CH465-S systems applied directly over prepared old concrete.

KEY PROPERTIES

- Two-part reactive primer for weak, dusty or aged concrete
- Consolidates the surface and seals porosity
- Simple 3:1 mixing ratio by weight
- Base for FloorGuard CH340-W colour coat or CH465-S clear top coat
- Roller or brush applied, undiluted



MIX RATIO	COVERAGE	DILUTION	OVERCOAT	SUBSTRATE
3:1	0.15 kg/m²	None	2 h	< 8%
A:B by weight	one coat, typical	apply as mixed	4 h before clear top coat	moisture content

01 RECOMMENDED USES

- Priming weak, dusty or aged concrete under ceramic-hybrid (CH) systems
- Old concrete floors to be finished with TopShield CH465-S clear top coat
- Refurbishment of car park, warehouse and factory floors
- Sealing prepared concrete before crack and pinhole repairs

02 SUITABLE SUBSTRATES

- Aged, weak or porous concrete and cement screed after mechanical preparation; moisture content below 8%
- Sound concrete where a two-part primer is specified
- Other substrates: confirm suitability with the technical team

03 SYSTEM ROLE

RAYSON TOPSHIELD CH465-S CLEAR TOP COAT	1–2 coats · 0.10 kg/m² each
RAYSON FLOORGUARD CH340-W COLOUR COAT	Coloured systems · 2 coats
RAYSON PRIMEBOND CH145-S PRIMER	This product · about 0.15 kg/m²
PREPARED CONCRETE SUBSTRATE	Ground back to firm concrete, vacuumed

Figure 1 — Typical system build-up (top to bottom). Layer thicknesses are system-dependent; confirm the specification for your project.

Technical data & application controls

Control the substrate, mix, application conditions and cure before handover.

SOURCE TECHNICAL DATA

SURFACE PREPARATION	Concrete must be dry and clean, with moisture content below 8%. Grind, sand or blast to remove laitance, friable material, dust, oil, old coatings and efflorescence until firm concrete is reached, then vacuum thoroughly. Preparation decides the result — do not coat over dust or contamination.
MIXING / DILUTION	Two parts, 3:1 by weight (Part A : Part B). Add Part B to Part A and mix with a slow-speed electric mixer until uniform. Mix only what can be applied promptly — working time shortens in hot weather. Do not dilute with water or thinner.
APPLICATION METHOD	Roller or brush. Use a lint-free roller and remove loose fibres before use.
COVERAGE	About 0.15 kg/m² in one coat (0.10–0.15 kg/m², depending on porosity).
APPLICATION CONDITIONS	Apply to a dry substrate at least 3 °C above dew point. Protect from rain, water and condensation until dry. Ventilate enclosed areas.

CONDITIONS, PACKAGING & STORAGE

DRYING & CURING	Allow to dry fully before repairs or the next coat — at least 2 hours in normal conditions. Drying is slower in cool or humid conditions.
RECOAT INTERVAL	FloorGuard CH340-W: after a minimum of 2 hours, once fully dry. TopShield CH465-S: after a minimum of 4 hours.
FILM / THICKNESS	Penetrating primer; consumption governs film.
PACK SIZES	Two-part set, Part A : Part B = 3:1 by weight. Confirm set size with the Rayson technical team.
STORAGE	Store sealed in original packaging in a cool, dry, shaded place at 5–30 °C. Keep away from heat and direct sunlight.
SHELF LIFE	See batch label; use unopened material within the stated period.

04 APPLICATION WORKFLOW

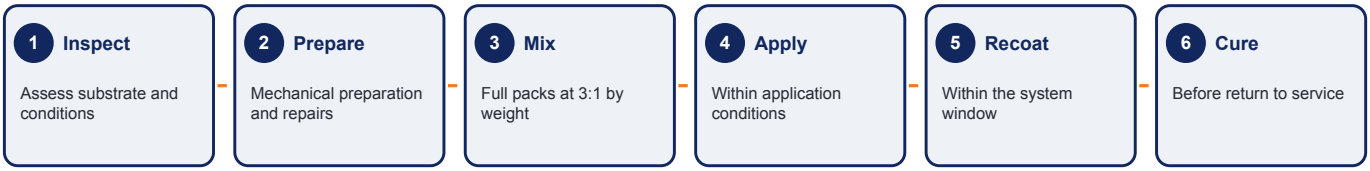


Figure 2 — Application workflow. Each stage is a hold point: confirm the previous stage is complete and within specification before proceeding.

Specify, apply and verify the system

05 RECOMMENDED SYSTEM

Coloured floor system — weak concrete

1. Prepare and vacuum the concrete, then prime with one coat of Rayson PrimeBond CH145-S at about 0.15 kg/m²
2. Once dry, repair cracks and pinholes with a Rayson epoxy repair compound
3. Apply two coats of Rayson FloorGuard CH340-W colour coat, at least 2 hours apart
4. After 24 hours, seal with one coat of Rayson TopShield CH465-S clear top coat

Clear system on old concrete

1. Grind, repair and vacuum the old concrete floor
2. Prime with one coat of Rayson PrimeBond CH145-S at about 0.15 kg/m²
3. Apply two coats of Rayson TopShield CH465-S clear top coat at 0.10 kg/m² each, at least 4 hours apart

06 LIMITATIONS

- Substrate must be dry (moisture content below 8%) and prepared back to firm concrete
- Use mixed material promptly; do not use material that has started to thicken
- Do not dilute; do not apply over damp concrete, standing water or condensation
- Not a wearing surface — must be overcoated with the ceramic-hybrid (CH) system

07 HEALTH & SAFETY

Two-part reactive product. Wear gloves and eye protection and ensure good ventilation, particularly when spraying. Avoid skin and eye contact — reactive resins can irritate and sensitise skin. Keep away from heat and ignition sources. Keep out of reach of children. Consult the Safety Data Sheet (in preparation) before use.

DISCLAIMER

The information in this data sheet is given in good faith and reflects typical values and general good practice. Because site conditions and workmanship are beyond our control, Rayson gives no warranty implied from this document; users should verify suitability for their specific application and confirm they are working from the current issue. For project-specific advice, contact the Rayson technical team.

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