POLYURETHANE-CEMENT SYSTEMS

FloorGuard PC330-W

WATER-BASED POLYURETHANE-CEMENT SELF-SMOOTHING SCREED

Rayson FloorGuard PC330-W is a four-part, water-based polyurethane-cement self-smoothing screed installed at 3–6 mm for medium to heavy-duty industrial floors with high chemical resistance.

FloorGuard PC330-W combines four pre-weighed parts into a coloured, self-smoothing polyurethane-cement hybrid screed. Installed at 3–6 mm by steel trowel, it produces a floor with tough mechanical and chemical resistance for rough, high-traffic industrial service.

KEY PROPERTIES

- Tough mechanical and chemical resistance for hard industrial service
- Bond strength to concrete exceeds the concrete itself
- Self-smoothing coloured screed at 3–6 mm in one operation
- Water-based four-part system supplied in pre-weighed units
- Chemical resistance
- Abrasion resistance
- Hygiene / washdown



Illustration — four-part set, Parts A to D. Pack sizes: see this data sheet.

MIX	COVERAGE	POT LIFE	FINAL CURE	PACK SIZE
4 parts	1.8 kg/m²	15–20 min	7 days	20.5 kg set
A+B+C+D	per mm thickness	at 30 °C	temperature dependent	3+3+14+0.5 kg

01 RECOMMENDED USES

- Medium to high loading self-smoothing screeds at 3–6 mm
- Food and beverage production and processing floors
- Chemical processing and wash-down areas
- Primer, base coat or wear coat within heavy-duty industrial flooring systems

02 SUITABLE SUBSTRATES

- Mechanically prepared concrete (minimum 28 days old, moisture content below 5%)
- Highly absorbent substrates
- Substrate pull-off strength above 1.5 N/mm² after preparation

03 SYSTEM ROLE



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	Substrate must be sound, clean and free of oil, grease, laitance, loose material and bond-inhibiting contaminants. Prepare concrete mechanically (captive shot blasting, milling or diamond grinding); remove weak concrete, open blowholes and voids, and reinstate imperfections with a suitable Rayson repair product. Vacuum all dust. New concrete should be at least 28 days old.
MIXING / DILUTION	Combine Parts A, B, C and D in the sequence stated in the current FloorGuard PC330-W method statement; mix mechanically until uniform; pot life 15–20 minutes at 30 °C
APPLICATION METHOD	Steel trowel
COVERAGE	1.8 kg/m² per mm of thickness (varies with substrate condition)
APPLICATION CONDITIONS	Minimum substrate temperature 5 °C; substrate moisture content max 5%; minimum mixing temperature +10 °C; cure between +10 °C and +35 °C; prepared substrate pull-off strength above 1.5 N/mm².

CONDITIONS, PACKAGING & STORAGE

DRYING & CURING	Final cure 7 days
RECOAT INTERVAL	Available from the Rayson technical team on request.
FILM / THICKNESS	Applied as a self-smoothing screed in the order of 3–6 mm.
PACK SIZES	Part A 3 kg / Part B 3 kg / Part C 14 kg / Part D 0.5 kg per set
STORAGE	Minimum 12 months at 5–35 °C in unopened original packaging; protect from direct sunlight.
SHELF LIFE	Minimum 12 months unopened in original packaging.

04 APPLICATION WORKFLOW

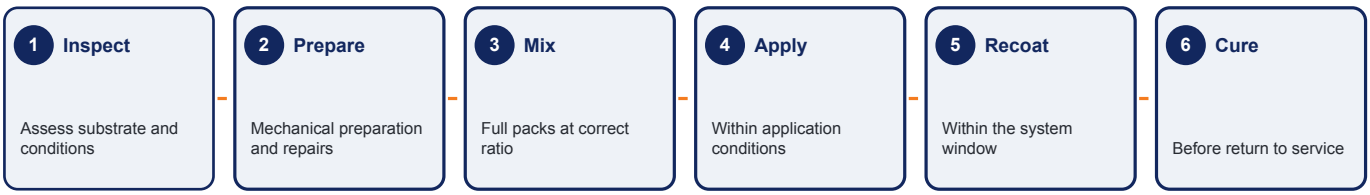

Figure 2 — Application workflow. Each stage is a hold point: confirm the previous stage is complete and within specification before proceeding.

Specify, apply and verify the system

05 RECOMMENDED SYSTEM

Heavy-duty F&B production floor

1. Mechanically prepare the slab, repair defects and detail drains and coves
2. Apply Rayson FloorGuard PC330-W as a self-smoothing screed at 3–6 mm by steel trowel

Layered heavy-traffic build-up

1. Apply Rayson FloorGuard PC330-W as the base coat
2. Finish with a further wear coat of Rayson FloorGuard PC330-W matched to the traffic

06 LIMITATIONS

- Minimum substrate temperature 5 °C; curing between +10 °C and +35 °C; concrete moisture content maximum 5%
- Short pot life (15–20 minutes at 30 °C); cures faster in hot weather — batching and placement must be continuous
- Standard colours maize yellow (RAL 1006) and green (RAL 6011); other RAL colours on request only
- Four-part mixing sequence must be followed exactly for a consistent screed

07 HEALTH & SAFETY

Two-component product. Wear gloves, eye protection and suitable respiratory protection where ventilation is limited. Avoid skin and eye contact. 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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