SELF-LEVELLING FLOOR SYSTEMS

FloorGuard EP320

SOLVENT-FREE SELF-SMOOTHING EPOXY FLOOR SYSTEM

Rayson FloorGuard EP320 is a solvent-free, two-component, self-smoothing epoxy floor system that delivers a seamless wearing surface with medium to heavy chemical resistance and high mechanical strength.

FloorGuard EP320 flows out under trowel, notched rake or roller into a seamless, self-smoothed wearing surface — the standard answer where roller-applied coatings are not enough and a level, joint-free floor is required. Solids content is 100% in both parts, so what goes down is what cures.

KEY PROPERTIES

- 100% solids, solvent-free — install in enclosed areas without solvent odour
- Self-smoothing application gives a seamless, level wearing surface
- Medium to heavy chemical resistance with high compressive and abrasion performance
- Durable, easy-to-clean finish with excellent impact resistance
- Chemical resistance
- Abrasion resistance
- Hygiene / washdown
- Low odour



Illustration — two-part set, Part A + Part B. Pack sizes: see this data sheet.

MIX RATIO	COVERAGE	POT LIFE	FULL CURE	PACK SIZE
4:1	1.6–2.0 kg/m²	20 min	5–7 days	20 kg set
A:B by weight	wearing coat	at 28 °C	temperature dependent	16 + 4 kg

01 RECOMMENDED USES

- Areas requiring resistance to mechanical loading and abrasion
- Pharmaceutical facilities and clean rooms
- Warehouses, storage areas and loading bays
- Assembly halls, plant rooms and garages
- Production areas and maintenance workshops

02 SUITABLE SUBSTRATES

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

03 SYSTEM ROLE

RAYSON FINISH / SEAL COAT	Where specified
RAYSON FLOORGUARD EP320 SELF-LEVELLING COAT	This product
RAYSON PRIMEBOND EP110 PRIMER	Recommended primer
PREPARED CONCRETE SUBSTRATE	Moisture ≤ 5%

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	Two pre-weighed parts, mix ratio 4:1 (A:B) by weight; mix mechanically for at least 2–3 minutes; pot life up to 20 minutes at 28 °C
APPLICATION METHOD	Steel trowel, Notched rake, Squeegee and roller, Spike roller to de-aerate
COVERAGE	Approximately 1.6–2.0 kg/m² as a self-smoothing wearing coat, subject to filling grade, porosity, level variation and wastage
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	At +20 °C: foot traffic 24 h, light traffic 4 days, full cure 7 days. At +30 °C: foot traffic 18 h, light traffic 2 days, full cure 5 days. Recoat window 24 h–2 days at +20 °C (16 h–1 day at +30 °C)
RECOAT INTERVAL	At +20 °C, 24 hours minimum to 2 days maximum; at +30 °C, 16 hours minimum to 1 day
FILM / THICKNESS	Self-levelling body coat; nominal thickness set by application rate.
PACK SIZES	Part A 16 kg / Part B 4 kg per set
STORAGE	Up to 12 months at 5–25 °C in unopened original packaging; protect from direct sunlight.
SHELF LIFE	Approximately 12 months unopened, in a cool area.

04 APPLICATION WORKFLOW

1. **Inspect** — Assess substrate and conditions
2. **Prepare** — Mechanical preparation and repairs
3. **Mix** — Full packs at correct ratio
4. **Apply** — Within application conditions
5. **Recoat** — Within the system window
6. **Cure** — Before return to service

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

Self-levelling production floor

1. Mechanically prepare the slab and repair defects with Rayson PatchBond EP220
2. Prime with Rayson PrimeBond EP110
3. Apply Rayson FloorGuard EP320 self-smoothing wearing coat and spike-roll to de-aerate

06 LIMITATIONS

- Minimum substrate temperature 5 °C; curing between +10 °C and +35 °C; concrete moisture content maximum 5%
- Short pot life (about 20 minutes at 28 °C) demands organised batching and placement
- Cure and overcoat times are approximate and shift with ambient and substrate conditions
- Epoxy chemistry — not colour-stable under exterior UV exposure

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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