PRIMERS & BONDING COATS

PrimeBond EP120-S

SOLVENT-BASED EPOXY PRIMER

Rayson PrimeBond EP120-S is a two-part, low-viscosity, solvent-based epoxy primer that penetrates and seals prepared concrete, pavements and mineral substrates before coating.

PrimeBond EP120-S uses a low-viscosity, solvent-based epoxy formulation to soak into prepared concrete and bind the surface before the floor system goes down. The two parts mix 1:1 and react to form a long-lasting sealing coat with excellent adhesion — pull-off testing on prepared concrete produces failure in the concrete, not the primer.

KEY PROPERTIES

- Low viscosity for deep penetration into dense and porous concrete
- Excellent adhesion — bond strength exceeds concrete cohesion on prepared substrates
- Excellent impact and chemical resistance in the cured film
- Simple 1:1 mixing ratio
- Chemical resistance



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

MIX RATIO	COVERAGE	POT LIFE	FINAL CURE	PACK SIZE
1:1	5–6 m²/L	30 min	7 days	20 L set
A:B by weight	per coat	at 28 °C	heavy traffic after 8 h	10 + 10 L

01 RECOMMENDED USES

- Priming prepared concrete on car park decks and ramps
- Priming pavements, walkways, loading bays and industrial floors
- Sealing existing concrete before recoating
- Priming mineral and highly absorbent substrates

02 SUITABLE SUBSTRATES

- Prepared new and existing concrete (minimum 28 days old, moisture content below 5%)
- Mineral substrates, including highly absorbent surfaces
- Asphalt (confirm suitability with the technical team)

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	Two pre-weighed parts, mix ratio 1:1 by weight; mix mechanically for at least 2–3 minutes; pot life up to 30 minutes at 28 °C
APPLICATION METHOD	Roller, Brush, Airless spray
COVERAGE	5–6 m² per litre per coat; minimum 2 coats on normal or dense concrete — varies with substrate porosity
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; minimise heavy traffic for 8 hours after application on pavements
RECOAT INTERVAL	Confirm the recoat window with the Rayson technical team.
FILM / THICKNESS	Penetrating primer; consumption governs film.
PACK SIZES	Part A 10 litres / Part B 10 litres per set
STORAGE	Minimum 12 months at 5–30 °C in unopened original packaging; protect from direct sunlight.
SHELF LIFE	Approximately 12 months unopened; sunlight exposure reduces shelf life.

04 APPLICATION WORKFLOW

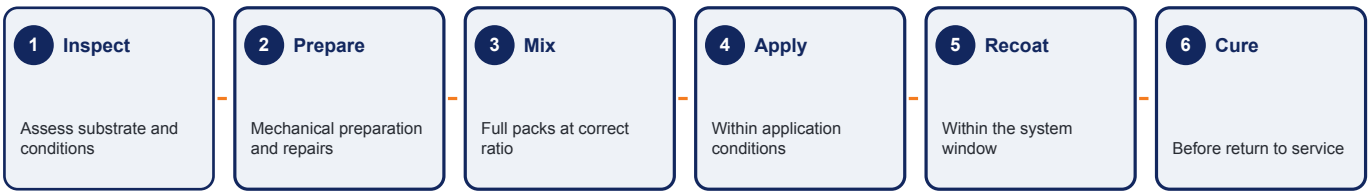

Figure 2 — Application workflow. Each stage is a hold point: confirm the previous stage is complete and within specification before proceeding.

Specify, apply and verify the system

05 RECOMMENDED SYSTEM

Exterior PU deck system

1. Prime prepared concrete with 2 coats of Rayson PrimeBond EP120-S
2. Finish with 2 coats of Rayson TopShield PU420-S UV-stable polyurethane

Dense concrete sealing

1. Apply first coat of Rayson PrimeBond EP120-S and allow to penetrate
2. Apply second coat to achieve a uniform sealed surface before the specified finish

06 LIMITATIONS

- Minimum substrate temperature 5 °C; curing between +10 °C and +35 °C; concrete moisture content maximum 5%
- Mixed material must be used within its pot life; cures faster in hot weather and in large batches
- Solvent-based — provide adequate ventilation; not recommended for occupied areas without ventilation control
- Not a wearing surface — must be overcoated

07 HEALTH & SAFETY

Solvent-based product — flammable. Ensure good ventilation, keep away from ignition sources, and wear gloves, eye and respiratory protection. 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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