



POLYZEN

WHERE SOVEREIGN SURFACES RULE

TECHNICAL DATA SHEET

EDITION 08/2026

ZENPRIME 100

RANGE

ZENPRIME (Primers)

MATERIAL FAMILY

Epoxy primer / sealer

CHEMISTRY

Solvent-free epoxy, phenalkamine cured

1. PRODUCT DESCRIPTION

ZENPRIME 100 is a two-component, solvent-free, low-viscosity epoxy primer for concrete. Part B is a phenalkamine curing agent that is free of benzyl alcohol.

The system penetrates and seals concrete pores, cures rapidly including at low ambient temperature, and develops adhesion on damp, unprepared or green concrete where conventional amine-cured primers are unreliable.

It is overcoated within the same working day, which allows a two-layer floor to be completed in a single shift.

2. RECOMMENDED USES

- Primer beneath POLYZEN self-levelling systems
- Primer beneath epoxy screeds and mortars
- Sealing porous, absorbent or dusty concrete
- Priming of green or damp concrete slabs
- Crack sealing and grouting when filled
- Priming of civil and steel structures

3. FEATURES & BENEFITS

- Adhesion on damp and green concrete
- Rapid cure, including at low temperature
- Benzyl alcohol free
- Very low shrinkage
- Solvent free — 100% solids
- Overcoated the same working day

4. KIT COMPOSITION

Component	Qty	Description
Part A — Base	5.0 kg	Epoxy resin, reactive-diluent modified
Part B — Hardener	2.5 kg	Phenalkamine, benzyl alcohol free
Kit total	7.5 kg	Pre-measured two-part kit

Supplied as a pre-measured kit. Mix full kits only, exactly as supplied — no part-mixing and no site additions.

5. PRODUCT DATA

Typical / Indicative values. Figures below are typical for this class of material and are stated as minimum declared values, not as a guaranteed specification. Project values are confirmed by POLYZEN batch testing and project commissioning.

Property	Value	Method / basis
Appearance, Part A	Clear liquid	Visual
Appearance, Part B	Yellow-brown liquid	Visual
Colour, Part A / Part B	Gardner 1 max / 17 max	Supplier data
Finish	Clear, penetrating	Not a wearing surface
Viscosity, Part A @ 25°C	500 – 700 cPs	Brookfield, supplier data
Viscosity, Part B @ 25°C	300 – 700 cPs	Brookfield, supplier data
Epoxy equivalent weight	190 – 200 g/Eq	Supplier data
Density, Part A / Part B	1.15–1.17 / 0.96–0.98 g/cc	Supplier data
Mixing ratio, A : B	100 : 50 by weight	Fixed
Mixed density	1.089 g/cc	Calculated
Mixed viscosity @ 25°C	1000 – 1500 cPs	Brookfield, supplier data
Solids content	100 % — solvent free	Supplier data
Pot life @ 25°C / 35°C	25–30 / 12–18 minutes	Supplier data / typical
Surface dry @ 25°C	2 – 3 hours	Supplier data
Touch dry @ 25°C	5 – 6 hours	Supplier data
Overcoating interval	3 – 4 hours, while tacky	Supplier data
Full cure @ 25°C	7 days	Typical
Shelf life, Part A / Part B	24 / 12 months	Supplier data
Hardness, Shore D	78 – 82	ASTM D2240 — typical
Pull-off adhesion to concrete	> 1.5 MPa, concrete failure	ASTM D4541 — typical
Water absorption, 24 h	< 0.5 %	ASTM D570 — typical
Shrinkage on cure	< 0.1 %	Typical
Service temperature, dry heat	–20 to +60 °C	Typical
VOC content	Solvent free	Supplier data

6. CHEMICAL RESISTANCE

Rating	Media
Resistant	Water and salt water · most salt solutions · mineral oils, greases and hydraulic fluids · diesel and petrol · brake fluid · neutral and alkaline detergents · dilute alkalis · dilute mineral acids to 10%
Intermittent spillage	Dilute acetic acid · ethanol and isopropyl alcohol · hypochlorite bleach · dilute hydrogen peroxide · hot water spillage
Not resistant	Concentrated nitric and sulphuric acids · formic acid · phenol · chlorinated solvents · ketones such as acetone and MEK

Ratings are for short intermittent contact at ambient temperature followed by cleaning, and are typical for the binder class. Behaviour depends on concentration, temperature and contact time. For continuous immersion or aggressive cleaning regimes, refer the specific media to POLYZEN before specifying.

7. CONSUMPTION

Substrate condition	Consumption	Coverage / kit
Smooth or previously sealed	0.12 – 0.15 kg/m ²	50 – 62 m ²
Normal concrete	0.15 – 0.20 kg/m ²	37 – 50 m ²
Rough or highly absorbent	0.20 – 0.25 kg/m ²	30 – 37 m ²

Consumption depends on surface profile and porosity. Confirm on a trial area before ordering for large works.

8. SUBSTRATE REQUIREMENTS & PREPARATION

Requirement	Value	Standard
Concrete age	Minimum 28 days, or until the slab is dimensionally stable	—
Concrete compressive strength	Minimum 25 MPa	IS 516 / ASTM C39
Substrate pull-off strength	Minimum 1.5 MPa	ASTM D7234 / C1583
Surface profile after preparation	CSP 3 or greater	ICRI 310.2R
Surface cleanliness	Free of laitance, curing compounds, oil, grease and all bond-inhibiting matter	SSPC-SP 13 / NACE No. 6
Substrate moisture — in-situ RH	Maximum 75% RH	ASTM F2170
Substrate moisture — vapour emission	Maximum 5 lb / 1000 ft ² / 24 h	ASTM F1869
Substrate moisture — site check	No visible moisture under plastic sheet	ASTM D4263
Floor preparation practice	Slab flat, sound and free of contamination	ASTM F710
Where moisture exceeds the limits	Resin moisture-mitigation membrane before priming	ASTM F3010

Preparation sequence

Mechanical preparation	Diamond grinding or captive shot blasting to remove laitance and weak surface material and to open the surface texture, followed by vacuum cleaning. Acid etching is not accepted.
Repairs	Cracks, joints, spalls and deep pitting repaired with a compatible epoxy repair mortar before priming. Movement joints are carried through the finished floor.
Green and damp concrete	The curing agent in ZENPRIME 100 is formulated for adhesion on damp, unprepared and green concrete, which allows work on younger slabs than a conventional amine-cured primer permits. Confirm the specific case with POLYZEN.

9. APPLICATION

Conditions	Ambient and material temperature 0 – 35°C; relative humidity below 65%; substrate at least 3°C above dew point. Application in monsoon conditions is not recommended. Pre-condition packs to a stable temperature before mixing.
Batch size	Mix full kits only, exactly as supplied. Do not part-mix and do not add anything on site. Mix only what can be placed within the pot life — epoxy held in bulk generates heat and sets faster.
Mixing	Combine Part A and Part B in the stated ratio and mix mechanically with a low-speed drill and helical or ribbon paddle for 4 – 5 minutes until uniform. Scrape the sides and base of the container before transferring.
Application	Apply uniformly by brush, spreader or medium-nap roller, ensuring complete coverage without holidays. Where the surface remains patchy through absorption, apply a second coat after 3 – 4 hours.
Overcoating	Apply the next layer 3 – 4 hours after priming, while the primer is still tacky. If this window is missed and the primer has cured hard, it must be mechanically abraded and solvent wiped before proceeding. This is the most common cause of delamination on site.

10. PACKAGING, STORAGE & SAFETY

Packaging	Pre-measured multi-part kit. Each pack carries the product name, part designation, net weight and batch number.
Storage	Original sealed containers, off the ground, dry covered area at 2 – 40°C, away from direct sunlight, heat and moisture.
Safety	Uncured resins and hardeners can cause skin and eye irritation and sensitisation. Wear chemical-resistant gloves, goggles and protective clothing; ensure ventilation. Do not allow uncured material to enter drains.

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Basis of data. Values attributed to supplier data are taken from the raw material manufacturer's technical data sheet. Calculated values are design values derived from component densities and mixing ratio. Values marked typical are typical for this class of material and are stated as minimum declared values, not as a guaranteed specification; they are confirmed by POLYZEN batch testing and project commissioning.
Statement of responsibility. The information given reflects present knowledge and experience. It does not relieve the user of the responsibility to verify, by their own trials, that the product is suitable for the intended purpose and conditions of use. Final performance depends on substrate condition, system design, workmanship and service conditions. **Application outside the conditions stated in this sheet voids the written warranty.** Site services, where provided, do not constitute supervisory responsibility. Refer to the Safety Data Sheet before use.