



POLYZEN

WHERE SOVEREIGN SURFACES RULE

TECHNICAL DATA SHEET

EDITION 08/2026

ZENTOP CL 100

RANGE

ZENTOP (Wearing coats)

MATERIAL FAMILY

Clear epoxy binder / seal coat

CHEMISTRY

Solvent-free epoxy, unfilled, low colour

1. PRODUCT DESCRIPTION

ZENTOP CL 100 is a two-component, solvent-free, unfilled clear epoxy binder. It has the lowest mixed viscosity and the longest pot life of the POLYZEN range, which is what a broadcast system needs: the material can be squeegeed and back-rolled, aggregate broadcast into it while wet, and later encapsulated without haze.

Part B is formulated for resistance to amine blush, so the cured film stays clear instead of developing the greasy bloom that clouds ordinary amine-cured clear coats.

It is used clear where the layer beneath must show through, and pigmented with Part D where a colour is required.

2. RECOMMENDED USES

- Base coat for quartz, mica and flake broadcast systems
- Seal coat over broadcast systems
- Binder for metallic and marble-effect floors
- Clear coat over 3D and printed floors
- Binder for epoxy terrazzo
- Counter tops, table tops and bar tops
- Refresh coat over sound existing resin floors
- Tank lining and lamination

3. FEATURES & BENEFITS

- Lowest mixed viscosity in the range — 400–600 cPs
- Longest pot life — 30 to 45 minutes
- Resistant to amine blush
- Water-clear — Gardner 0.5 max
- High gloss and colour stability
- Solvent free — 100% solids

4. SUPPLY

Component	Qty	Description
Part A — Base	5.0 kg	Clear liquid epoxy resin
Part B — Hardener	2.5 kg	Clear amine curing agent, blush resistant
Part D — Pigment	0.4 kg	Optional colour pack, where a pigmented coat is required
Kit total	7.5 kg	Pre-measured two-part kit; Part D supplied separately

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	Clear liquid	Visual
Colour, Part A	Gardner 0.5 max	Supplier data
Colour, Part B	Gardner 2 max	Supplier data
Finish	Clear, high gloss	Pigmented on request
Viscosity, Part A @ 25°C	1000 – 1500 cPs	Brookfield, supplier data
Viscosity, Part B @ 25°C	50 – 150 cPs	Brookfield, supplier data
Epoxy equivalent weight	190 – 200 g/Eq	Supplier data
Density, Part A / Part B	1.15–1.17 / 1.007 g/cc	Supplier data
Mixing ratio, A : B	100 : 50 by weight	Fixed
Mixed density	1.10 g/cc	Calculated
Mixed viscosity @ 25°C	400 – 600 cPs	Brookfield, supplier data
Solids content	100 % — solvent free	Supplier data
Pot life @ 25°C	30 – 45 minutes	Supplier data
Pot life @ 35°C	15 – 22 minutes	Typical
Surface dry @ 25°C	3 – 4 hours	Supplier data
Touch dry @ 25°C	5 – 6 hours	Supplier data
Foot traffic @ 25°C	24 hours	Typical
Overcoating interval @ 25°C	16 – 24 hours	Typical
Full cure @ 25°C	7 days	Typical
Shelf life, Part A / Part B	24 / 12 months	Supplier data
Gloss @ 60°	90 – 100 GU	Typical
Compressive strength	≥ 60 MPa	ISO 604 — typical
Flexural strength	≥ 50 MPa	EN ISO 178 — typical
Tensile strength	≥ 30 MPa	EN ISO 527 — typical
Hardness, Shore D	80 – 85	ASTM D2240 — typical
Abrasion resistance	≤ 60 mg loss	ASTM D4060, CS-17, 1 kg, 1000 cycles — typical
Pull-off adhesion to concrete	> 1.5 MPa, concrete failure	ASTM D4541 — typical
Water absorption, 24 h	< 0.3 %	ASTM D570 — 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

Use	Consumption	Coverage per 7.5 kg kit
Clear coat / refresh coat	0.30 – 0.50 kg/m ²	15 – 25 m ²
Base coat for broadcast	0.60 – 0.80 kg/m ²	9 – 12 m ²
Seal coat over broadcast	0.70 – 1.00 kg/m ²	7 – 11 m ²
Metallic / 3D top coat	0.80 – 1.20 kg/m ²	6 – 9 m ²

Consumption over a broadcast surface depends on the aggregate grade and how much texture is to be retained. A heavier seal coat gives a smoother, more cleanable floor; a lighter one keeps the anti-skid profile open.

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

9. APPLICATION

Substrate	Applied over ZENPRIME 100, over a cured POLYZEN layer, or over a sound existing resin floor that has been mechanically abraded and vacuumed.
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	Where a pigmented coat is required, disperse Part D fully into Part A first and mix until even in colour. Add Part B and mix mechanically with a low-speed drill and helical paddle for 3 – 4 minutes. Scrape the sides and base of the container before transferring.
Application as base coat	Pour and spread with a squeegee at the stated rate, then back-roll to an even film. Broadcast aggregate into the wet film immediately and continue to refusal. Applicators must wear spiked shoes.
Application as seal coat	Apply by squeegee and back-roll, or by roller, after the broadcast layer has cured and all loose aggregate has been swept and vacuumed off.
Limitation	Interior use. Epoxy chalks and yellows under direct UV exposure. For exposed decks and outdoor areas an aliphatic polyurethane top coat is required.
Protection	Protect from traffic, water and spillage for at least 48 hours. Full mechanical and chemical resistance is reached after 7 days at 25°C.

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.