KREVO Shield EP-ZP

High-build epoxy zinc-phosphate primer | Phenalkamine cured | Industrial steel protection

PRODUCT DESCRIPTION

KREVO Shield EP-ZP is a two-component, high-build phenalkamine epoxy coating containing zinc-phosphate anticorrosive pigment. Designed for protective coating of suitably prepared steel, it can be used as a primer or intermediate coat in industrial atmospheric coating systems. Its surface-tolerant properties and short recoat intervals support maintenance applications.

ADVANTAGES

- High-build epoxy coating with zinc-phosphate anticorrosive pigmentation.
- Short recoating intervals support efficient protective-coating operations.
- Suitable as a primer or intermediate coat in compatible coating systems.
- Good surface tolerance and controlled moisture tolerance during application.
- Can be used with selected acrylic, alkyd, epoxy or polyurethane topcoats.

TYPICAL USES

Structural steel • Process plants and pipework • Industrial steelwork • Marine and coastal atmospheric exposure • Maintenance and refurbishment of suitably prepared steel

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Generic type	Two-component phenalkamine epoxy with zinc phosphate
Colours	Red or grey
Finish	Satin to low-sheen semi-gloss
Recommended dry film thickness	76–178 µm (3–7 mils) per coat
Volume solids	Approximately 75% ± 2%
Theoretical coverage	9.8 m^2/L at 75 µm; 4.2 m^2/L at 175 µm, before loss
Mixing ratio (A:B)	6:1 by volume; power mix full kits
Packaging / shelf life	19 L kit (approx. 30 kg shipping); at least 12 months unopened

PRODUCT & PERFORMANCE PROPERTIES

PARAMETER / TEST	TYPICAL VALUE / GUIDANCE
VOC as supplied	220 g/L
Pot life at 25 °C	2 hours; shorter at higher temperatures
Dry temperature resistance	93 °C continuous; 121 °C intermittent
Airless spray thinning	Up to 15% with approved compatible thinner
Brush / roller thinning	Up to 5% with approved compatible thinner
Steel blast cleaning	SSPC-SP 6 / ISO 8501-1 Sa 2½; 25–50 µm profile
Galvanized steel preparation	Remove contamination; abrade / sweep blast to adequate key
Topcoats / service	Acrylic, alkyd, epoxy or polyurethane; atmospheric service

Application & System Data

KREVO Shield EP-ZP | Curing intervals, steel preparation, mixing and coating sequence

CURING SCHEDULE | SURFACE TEMPERATURE

SURFACE TEMP.	DRY TO TOUCH	DRY TO RECOAT	MAX. RECOAT
+5 °C	12 h	2 days	60 days
+15 °C	4 h	8 h	45 days
+25 °C	60 min	2.5 h	30 days
+35 °C	30 min	1.5 h	15 days
After max. interval	Clean / abrade	Inspect surface	Recoat only after prep

Recoat times are indicative at approximately 50% relative humidity and 75–100 µm dry film thickness. Thicker films, lower temperatures or inadequate ventilation extend curing. Abrade and clean when maximum recoat time is exceeded.

TYPICAL PROTECTIVE COATING SEQUENCE

STAGE	MATERIAL / METHOD
1 | Surface inspection	Verify sound, dry and contamination-free substrate.
2 | Abrasive preparation	SSPC-SP 6 / Sa 2½ steel; 25–50 µm profile; abrade galvanizing.
3 | Component mixing	Power-mix A and B separately; combine at 6:1 by volume.
4 | Coating application	Spray or brush/roller evenly to 76–178 µm DFT per coat.
5 | Cure & inspection	Confirm cure, finish, DFT and recoat interval before topcoating.

STEEL & GALVANIZED SURFACE PREPARATION

Clean surfaces thoroughly and remove oil, dirt, rust, grease and loose coatings. For most steel applications, blast clean to SSPC-SP 6 / ISO 8501-1 Sa 2½ with a 25–50 µm angular profile. For galvanizing, degrease and roughen by suitable sweep blasting or power-tool methods; verify adhesion on a trial area.

MIXING, THINNING & APPLICATION EQUIPMENT

Power-mix Part A and Part B separately, combine at 6:1 by volume and power-mix to a uniform consistency. Use full matched kits only. Pot life is approximately 2 hours at 25 °C and decreases at higher temperatures. Where allowed, add only a KREVO-approved compatible thinner.

INSTALLATION CONTROL	SPECIFIED REQUIREMENT
DFT / theoretical coverage	76–178 µm per coat; 9.8 m^2/L at 75 µm before losses.
Environment	Material 10–32 °C; substrate 5–52 °C; air 5–43 °C; RH ≤85%.
Mixing / pot life	Part A:B = 6:1 (volume); approximately 2 h at 25 °C.
Cure at 25 °C	Touch dry 60 min; minimum recoat 2.5 h; maximum 30 days.
Storage / service	Store indoors in original sealed containers; atmospheric use.

For airless spraying, reference equipment is a minimum 30:1 pump, 0.015–0.021 inch tip and 2,100–2,300 psi working pressure. Brush or roller may require more coats to achieve the specified build. Thinning guidance: up to 15% for airless and 5% for brush/roller, subject to material approval.

ENVIRONMENTAL CONDITIONS & QUALITY CONTROL

Application temperatures: coating material 10–32 °C, steel surface 5–52 °C, ambient 5–43 °C and relative humidity not more than 85%. Keep the steel above dew point, prevent condensation, and verify surface cleanliness, profile and achieved dry-film thickness. Reject holidays, pinholes and poorly bonded areas.

Installation & Product Support

KREVO Shield EP-ZP | Mixing, spray application, recoat controls, safety and support

MIXING PROCEDURE

- Check product identity, shelf life, storage condition and matched component packaging.
- Power-mix each component individually; combine Part A and Part B in the 6:1 volume ratio.
- Power-mix until fully uniform; prepare only full kits and use within the stated pot life.
- Add approved thinner only if necessary and within the permitted limit for the selected method.

APPLICATION & INSPECTION

- Verify surface preparation, blast profile, weather conditions and absence of condensation.
- Apply by airless or conventional spray, or suitable brush/roller, to the required uniform film build.
- Check wet/dry film thickness, welds, edges, stripe-coated details and coating continuity.
- Confirm minimum and maximum recoat windows; wash off blush or contamination and abrade if overdue.

LIMITATIONS & SERVICE NOTES

- Do not use this epoxy coating for immersion service without separate system qualification.
- Epoxy films can lose gloss, change colour and chalk under sunlight and weathering.
- Steel temperature must remain above dew point and free of visible condensation.
- Use only specified coating-system topcoats; over inorganic zinc primers, a mist coat may be needed.
- Protective-system suitability for severe C5 exposure requires qualification of the complete system.

HEALTH, SAFETY & ENVIRONMENT

For industrial use by trained personnel. Solvent-bearing epoxy components are flammable; prevent ignition sources, provide suitable ventilation and use appropriate respirators, gloves and protective clothing. Read the current Safety Data Sheet before mixing, spraying, clean-up and disposal. Handle all waste in accordance with local regulations.

QUALITY & PRODUCT INFORMATION

Actual coating protection depends on supplied formulation, substrate preparation, applied film thickness, compatible primer/topcoat selection and cure. Confirm relevant batch tests and any specified ISO 12944 system classification before use in critical service.

KREVO | GLOBAL CONTACTS

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