

Coprenal 242 6E242

Series 6E242 · Solvent-free 2K epoxy high-build corrosion protection for steel and concrete in hydraulic engineering



01 PRODUCT DESCRIPTION

Coprenal 242 6E242 is a solvent-free, two-component epoxy liquid plastic with high abrasion resistance for heavily stressed steel and concrete surfaces in steel hydraulic engineering and the wastewater sector. It serves as an economical corrosion protection for large, continuous areas and can be applied as a high-build system with film thicknesses up to 500 µm (wet film thickness) per coat. The coating forms a highly abrasion-resistant, mechanically and chemically resistant surface with good adhesion to metallic and mineral substrates. Coprenal 242 6E242 is repairable, recoatable and suitable for spray application, ensuring efficient processing and durable performance even under demanding conditions.

02 PRODUCT PROPERTIES

Binder system	Epoxy resin
Hardener system	Bergolin EP Hardener 7E240, colorless
Cleaning thinner	EP Thinner 5E403
Characteristics	 Solvent-free  Highly abrasion-resistant  Repairable & recoatable  Sprayable  High-build up to 500 µm  Good adhesion
Color shade	RAL 9005 (further color shades on request)
Gloss	Glossy
Shelf life	Component A up to 12 months, component B up to 6 months in the unopened original container at +4 °C to +40 °C. Protect from frost and moisture.
Mechanical resistance	Shore D 75 abrasion resistance M II BAW (to ASTM D 4060: 6 mg CS10 / 1000 g / 1000 rev.)
Chemical resistance	Resistant to dilute organic and inorganic acids and alkalis (further media on request)
Thermal resistance	Up to approx. +80 °C (dry heat), briefly approx. +120 °C up to approx. +40 °C (moist heat and water)
Container size comp. A	20 kg
Container size comp. B	5 kg

Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C *1	Approx. 1.56 g/cm³	Approx. 1.03 g/cm³	Approx. 1.40 g/cm³
VOC content · IE Directive 2010/75/EU *1	Approx. 34.0 g/l	Approx. 0.0 g/l	Approx. 24.7 g/l
Solid content (wt.-%) · SDS *1	Approx. 97 %	Approx. 65 %	Approx. 90 %
Viscosity · DIN EN ISO 2555 · +20 °C *1	Approx. 18,500 mPas	Approx. 400 mPas	Approx. 4,300 mPas

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*1 Depending on color shade

03 APPLICATION

The following information may vary depending on the application. Please contact your direct contact person for more detailed information.

Substrate	Steel, zinc/aluminium, cement concrete/screed (further substrates on request)
Surface preparation	Ensure sufficient load-bearing capacity before application. Steel: Surface preparation to EN ISO 12944-4. Free of weld spatter, pores, laps, burrs, grease, oils and dirt. Blast-clean to Sa 2½, mean roughness Rz approx. 50–70 µm (G or operating mix GS). Optional primer: Epex zinc dust (3E750). Zinc/aluminium: Clean and sweep-blast. Primer: 1 × 30 µm Tenaxon T 569, consumption approx. 100 g/m² at 30 µm DFT. Cement concrete/screed: Surfaces solid, clean, free of grease, oil, wax, sand, dust and release agents, textured, load-bearing, free of loose/sanding particles and standing water. Optional primer: Steopox 220, consumption approx. 300–500 g/m² depending on absorbency; if required broadcast with fire-dried quartz sand 0.1–0.3 mm.
Mixing ratio	4 : 1 by weight 2.64 : 1 by volume
Mixing	Stir both components separately and homogenise if necessary. Pour component B into the container of component A and mix with an electric stirrer for at least 3 min at max. 700 rpm. Transfer into a clean container and mix again thoroughly for approx. 1 min.
Theoretical consumption	140 g/m² per 100 µm WFT 140 g/m² per 100 µm DFT
Film thickness	Max. 500 µm DFT max. 500 µm WFT per coat
Application method	 Brush / float coater  Airless spray  Trowel
Application conditions	 Air temperature +10 °C to +30 °C  Relative humidity max. 85 %  Surface temperature min. +10 °C  Dew point min. 3 °C below surface temperature
Pot life*2	Approx. 50 min at +20 °C
Working time*2	Approx. 40 min at +20 °C
Recoating interval (with itself)*2	Min. 2 h at +20 °C min. 96 h at +10 °C max. 72 h at +20 °C. After the maximum recoating time has elapsed, mechanical surface preparation (e.g. sanding or sweep-blasting) is required.
DRYING*2	
Dust-dry (TG 1)	Approx. 5 h (+20 °C) 7 h (+10 °C)
Walkable / sandable	Approx. 16 h (+20 °C) 32 h (+10 °C)
Mechanically & chemically fully cured	Approx. 7 days (+20 °C)

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Compatible systems

Primer steel: Epex zinc dust (3E750)
 Primer zinc/aluminium: Tenaxon T 569 (3E569)
 Primer cement concrete/screed: Steopox 220 (2E220)
 Further applications on request.

^{**2} Lower temperatures slow down drying; higher temperatures accelerate it.

Note on epoxy resin: During curing, epoxy resin is sensitive to moisture. Exposure to moisture may lead to the formation of a carbamate layer (white spots). This has a purely visual effect. Affected areas can be treated with a 10–20 % citric acid solution.

04 NOTE

This product data sheet supersedes all previously published product data sheets. The information contained herein is based on practical experience under standard conditions and assumes proper storage and processing. Substrates, materials and working conditions may vary. Therefore, no warranty or liability can be derived from the information contained in this document or from verbal consultation. It is the buyer's responsibility to verify the product's suitability for the intended use. Preliminary trials are recommended. The relevant legal regulations, the leaflets of the BG RCI and the accident prevention regulations of the responsible employers' liability insurance association must be observed. In all other respects, our General Terms and Conditions of Sale and Delivery apply.

MODIFIED BY

24.08.2026 – Martin Krull, Head of Laboratory

APPROVED BY

24.08.2026 – Stefan Eisenmenger, Product Management