Coprenal 1000 6E1000

Series 6E1000 · Solvent-free 2K epoxy high-build coating for corrosion protection of steel and concrete surfaces

01 PRODUCT DESCRIPTION

Coprenal 1000 6E1000 is a solvent-free, two-component liquid plastic for protecting heavily stressed steel and concrete surfaces, especially in wastewater facilities. It is particularly suitable for coating large, continuous areas requiring durable and economical corrosion protection. The coating shows a very low tendency to form carbamate and produces a highly abrasion-resistant surface. It can be applied as a high-build system with film thicknesses of up to 500 µm (dry film thickness) per coat and offers good adhesion on metallic and mineral substrates. Coprenal 1000 6E1000 is repairable and recoatable as well as sprayable, ensuring efficient application and long-term performance even under demanding conditions.

02 PRODUCT PROPERTIES

Binder system	Epoxy resin
Hardener system	Bergolin Hardener 7E1100
Cleaning thinner	EP Thinner 5E403
Characteristics	Solvent-free Low carbamate formation Highly abrasion-resistant Repairable & recoatable Sprayable High film build up to 500 µm Good adhesion
Color shade	Black, red-brown, grey (further color shades on request)
Gloss	Glossy
Shelf life	12 months in the unopened original container at +4 °C to +40 °C. Protect from frost and moisture.
Mechanical resistance	Shore D 85
Chemical resistance	Resistant to dilute organic and inorganic acids and alkalis (further media on request)
Thermal resistance	Up to approx. +80 °C (dry heat), short-term approx. +120 °C | up to approx. +40 °C (moist heat and water)
Approvals and specifications	BAW approval for area Im 1 (use under high mechanical loads) The system is listed as System No. 5 in the BAW list of approved systems. According to the BAW recommendations for the planning and execution of corrosion protection work in hydraulic steel engineering (2020 edition), the two-coat System No. 5 corresponds to Systems No. 3 and 4. If it is applied in several coats like a System No. 3/4, it is fully comparable with these; the feasibility of this application is hereby confirmed by the manufacturer.

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Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C *1	Approx. 1.53 g/cm³	Approx. 0.96 g/cm³	Approx. 1.45 g/cm³
VOC content · IE Directive 2010/75/EU *1	–	Approx. 4.3 g/l	–
Solid content (wt.-%) · SDS *1	Approx. 99.70 %	Approx. 100 %	Approx. 99.75 %
Viscosity · DIN EN ISO 2555 / ISO 2431 · +20 °C *1	Approx. 9,000 mPas	Approx. 15 s	Approx. 1,700 mPas

*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 from weld spatter, pores, overlaps, burrs, grease, oil and dirt. Blast-clean to Sa 2½, preferably, mean roughness Rz approx. 50–70 µm. **Optional** primer: 1 × 50 µm Epex zinc dust, consumption approx. 227 g/m² at 50 µm DFT. **Zinc/aluminium:** Degrease, mechanically roughen or sweep-blast. Primer: Tenaxon T 569, consumption approx. 100 g/m² at 30 µm DFT. **Cement concrete/screed:** Surfaces must be firm, clean, free from grease, oil, wax, sand, dust and release agents, with good grip, load-bearing, free from loose/sanding particles and standing water. Primer: Steopox 220, consumption approx. 300–500 g/m² depending on absorbency; if necessary broadcast with kiln-dried quartz sand 0.1–0.3 mm.
Mixing ratio	5 : 1 by weight | 3.14 : 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	145 g/m² per 100 µm WFT | 145 g/m² per 100 µm DFT
Film thickness	Max. 500 µm DFT | max. 500 µm WFT per coat
Application method	Brush · Roller · Airless spray
Application conditions	**Air temperature** +5 °C to +30 °C **Relative humidity** max. 85 % **Surface temperature** min. +10 °C **Dew point** min. 3 °C below surface temperature
Gel time *2	Approx. 150 min at +20 °C
Working time *2	Approx. 90 min

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Recoating interval (with itself)[*2]	Min. 6 h / max. 300 h. After the maximum recoating time is exceeded, mechanical surface preparation (e.g. sanding or sweep-blasting) is required.
DRYING[*2]	
Drying grade 1 (dust-dry)	Approx. 6 h at +20 °C
Drying grade 7 (through-dry)	Approx. 16 h at +20 °C · full mech./chem. load capacity after approx. 7 days
Compatible systems	Primer steel: Epex zinc dust (3E750) Primer zinc/aluminium: Tenaxon T 569 (3E569) Primer concrete/screed: Steopox 220 (2E220) Further applications on request.

[*2] *Low 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
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