

BERGOLED SPEED-RESIN 1L1000-I

Series 1L1000 · Solvent-free, LED-UV-curing laminating resin (395 nm) for GRP components (indoor)



01 PRODUCT DESCRIPTION

BergoLED Speed-Resin 1L1000-I, Indoor is a solvent-free, LED-UV radiation-curing laminating resin for the fast and reliable manufacture and repair of glass-fibre composites (GRP). It is cured within seconds using a suitable LED-UV lamp (wavelength 395 nm) and can be reworked immediately afterwards, enabling very short cycle times. Until deliberate curing, the material remains workable for any length of time. The indoor variant is designed for processing without direct sunlight. An integrated glazing-red colour indicator shows the curing progress and disappears on full curing. The resin achieves excellent adhesion and offers good mechanical and chemical resistance.

02 PRODUCT PROPERTIES

Binder system	Polyurethane acrylate
Cleaning thinner	Bergopur Thinner 5P043
Characteristics	 Solventfree  Cures in seconds  Directly reworkable  Excellent adhesion  Chemically resistant
Color shade	Colourless (glazing red when applied, as UV curing indicator)
Shelf life	Approx. 12 months in the unopened original container at +4 °C to +40 °C. Protect from frost, moisture and direct light exposure.
Approvals and specifications	In accordance with the classification programme DNVGL-CP-0089

Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C	Approx. 1.1 g/cm ³	–	–
VOC content · IE Directive 2010/75/EU	Approx. 49.2 g/l	–	–
Solid content (wt.-%) · SDS	Approx. 95.56 %	–	–
Viscosity · DIN EN ISO 2555 · +20 °C	Approx. 1200 mPas	–	–

MECHANICAL PROPERTIES (CURED LAMINATE)

Test	Test standard	Result
Density (solid)	DIN EN ISO 1183-1	1.207 g/cm ³
Glass transition temperature (T _g)	DIN EN ISO 11357-2	85 °C
Volumetric shrinkage (after curing)	DIN EN ISO 3521	Not tested
Tensile strength	DIN EN ISO 527-2	38.4 MPa
Tensile modulus	DIN EN ISO 527-2	2,593 MPa
Elongation at break	DIN EN ISO 527-2	1.77 %
Flexural strength	DIN EN ISO 178	81.56 MPa
Flexural modulus	DIN EN ISO 178	2,269 MPa

03 APPLICATION

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

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Substrate	GRP (glass-fibre composites); 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).
Application method	 Brush  Roller  Airless spray
Application conditions	 Ambient conditions No restrictions regarding temperature and humidity; the substrate must be dry. Protect the material from LED radiation and direct sunlight, otherwise the reaction may start.
Pot life	None
Working time	Unlimited, as long as the product is not exposed to UV radiation, the low-VIS spectrum or sunlight.
Recoating interval (with itself)	Can be overcoated with itself without sanding.
CURING	
Dust-dry (TG 1)	Approx. 4 h
Fully dried (TG 7)	Approx. 12 h
Fully cured (mech. & chem.)	Approx. 7 days

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