BERGOLED SPEED-RESIN 1L1000-O

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

01 PRODUCT DESCRIPTION

BergoLED Speed-Resin 1L1000-O, Outdoor 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. As the outdoor variant, the resin is equipped with a UV sun protection that allows a working time of up to approx. 5 minutes in 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. 1.1040 g/cm³	–	–
VOC content · IE Directive 2010/75/EU	Approx. 0 g/l	–	–
Solid content (wt.-%) · SDS	Approx. 100 %	–	–
Viscosity · DIN EN ISO 2555 · +20 °C	Approx. 1000 mPas	–	–

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MECHANICAL PROPERTIES (CURED LAMINATE)

Test	Test standard	Result
Density (solid)	DIN EN ISO 1183-1	1.1940 g/cm³
Shore D hardness	DIN EN ISO 868	88
Glass transition temperature (Tg)	DIN EN ISO 11357-2	97.5 °C
Heat deflection temperature (HDT)	DIN EN ISO 75-2	73.5 °C
Volumetric shrinkage (after curing)	DIN EN ISO 3521	8.19 %
Tensile strength (type 1A)	DIN EN ISO 527-2	69.17 MPa
Tensile modulus (type 1A)	DIN EN ISO 527-2	3,180 MPa
Elongation at break (type 1A)	DIN EN ISO 527-2	4.15 %
Tensile strength (type 1B)	DIN EN ISO 527-2	69.24 MPa
Tensile modulus (type 1B)	DIN EN ISO 527-2	3,152 MPa
Elongation at break (type 1B)	DIN EN ISO 527-2	3.94 %
Flexural strength	DIN EN ISO 178	112.8 MPa
Flexural modulus	DIN EN ISO 178	2,917 MPa
Flexural strain	DIN EN ISO 178	5.38 %
Water absorption	DIN EN ISO 62	0.17 % (1 d) / 0.46 % (7 d)

03 APPLICATION

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

Substrate	GRP (glass-fibre composites); further substrates on request
Surface preparation	The surfaces to be coated must be clean, dry, load-bearing and free from contamination (e.g. oil, grease and dust). Release-agent residues must be removed completely. The substrate must be mechanically sanded. After sanding, remove all sanding residues completely.
Application method	Rolling Brushing
Application conditions	**Ambient conditions** No restrictions regarding temperature and humidity; the substrate must be dry. Protect the material from LED radiation and direct sunlight. Thanks to the UV sun protection, application in direct sunlight is possible within approx. 5 min.
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	
Curing / curing time	Cures within seconds with an LED-UV lamp (wavelength 395 nm); curing should always be carried out under a peel ply. The surface can be sanded as soon as the initially glazing-red colour indicator has completely disappeared after exposure.

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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