Bergolin LEP 6D1100

Series 6D1100 · Solvent-free 2K PUR leading-edge protection (LEP) for wind turbine rotor blades

01 PRODUCT DESCRIPTION

Bergolin LEP 6D1100 is a solvent-free and light-fast two-component polyurethane liquid plastic used as erosion protection (leading edge protection) for the rotor blades of wind turbines. The system is 100 % solvent-free and has proven itself in nearly ten years of field experience. It can be applied multifunctionally (rolling, brushing, spraying, casting), is repairable and therefore also suitable for repairing service and transport damage. The product is compatible between different blade types, offers very good mechanical and chemical resistance, is weather-stable and requires no additional topcoat. It forms an elastic, abrasion- and weather-resistant protective layer on the erosion-exposed leading edges, provides outstanding erosion protection and thereby extends the service life of the rotor blades. The product is approved by various OEMs.

02 PRODUCT PROPERTIES

Binder system	Polyurethane
Hardener system	Bergodur Hardener 7D810
Cleaning thinner	Bergolin Cleaning Agent 5P1100
Characteristics	Solvent-free · Erosion protection · Chemical-resistant · Weatherstable · Repairable
Color shade	RAL 7035, RAL 7038 (further color shades on request)
Gloss	Glossy
Shelf life	Approx. 12 months in the unopened original container at +4 °C to +40 °C; for 2K cartridges approx. 18 months. Protect from frost and moisture.
Approvals and specifications	DNVGL-RP-0171 – Testing of rotor blade erosion protection systems

Property	Comp. A	Comp. B	Mixture
Density · DIN EN ISO 2811-1 · +20 °C *¹	Approx. 1.47 g/cm³	Approx. 1.15 g/cm³	Approx. 1.38 g/cm³
VOC content · IE Directive 2010/75/EU *¹	Approx. 1 g/l	Approx. 0 g/l	Approx. 0.3 g/l
Solid content (wt.-%) · SDS *¹	Approx. 100 %	Approx. 100 %	Approx. 100 %
Rotational viscosity · DIN EN ISO 2555 · +20 °C *¹	Approx. 10,500 mPas	Approx. 1,000 mPas	Approx. 6,000 mPas

*¹ *Depending on color shade*

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03 APPLICATION

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

Substrate	GRP as well as sound underlying coatings (e.g. filler, gelcoat, primer); 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. Use suitable abrasive paper with a grit of 80–120. After sanding, remove all sanding residues completely.
Mixing ratio	100 : 39 by weight | 100 : 50 by volume
Mixing	Application via 2K dosing unit or 2K cartridge, each with a static mixer. Before starting, the unit should be volumetrically calibrated (litre check) and any deviations in the mixing ratio corrected. Maximum permissible deviation 3 %.
Theoretical consumption	Approx. 1.38 kg/m² per 1,000 µm dry film thickness
Film thickness	Multi-coat build-up; min. 400 µm total dry film thickness (400–600 µm when spraying) to achieve a sufficient wear layer.
Application method	Roller · Brush · Spraying · Casting *For spray application, please coordinate the process with our Technical Service in advance.*
Application conditions	**Air temperature** +5 °C to +35 °C **Relative humidity** 20–80 % **Dew point** min. 3 °C below object temperature When spraying: material temperature 50–60 °C (do not exceed the maximum).
Pot life[*2]	Approx. 15 min
Working time[*2]	Approx. 7 min
Recoating interval (with itself)[*2]	Casting, rolling and brushing: max. 24 h | Spraying: 4 h (at 55 °C material temperature). After the maximum recoating time has elapsed, mechanical surface preparation (e.g. sanding) is required.
DRYING[*2]	
Dust-dry (TG 1)	Approx. 40 min
Sandable	Approx. 2 h; recommended grit 80–120
Fully dried (TG 7)	Approx. 4 h
Compatible systems	The product can be combined with numerous other products from the Bergolin wind-energy portfolio to form a coordinated coating system. We will be glad to help you determine the suitable system combination – please contact our Technical Service.

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*2 *Values are based on laboratory measurements at +20 °C. Lower temperatures slow down drying; higher temperatures accelerate it.*

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