

## Jotatop LEP Pro

### Product description

This is a two component chemically curing aliphatic polyurea coating. It is a high solids product with excellent rain erosion resistance, weatherability and elasticity. To be used as a topcoat for leading edge areas of wind turbine blades. Developed for use on glass fiber reinforced epoxy and/or polyester substrates, as well as other wind turbine blade coatings such as Jotatop BC100 and Jotatop BC300 WF. Only to be used as tiecoat in combination with Jotatop LEP Pro. Jotatop LEP Tiecoat must be applied in the LEP area prior to Jotatop LEP Pro.

### Typical use

Specially designed for protection of the leading edge of wind turbine rotor blades.

### Approvals and certificates

Rain erosion tested according to ASTM G73-10 "Standard test method for Liquid Impingement erosion using rotating apparatus" or DNVGL-RP-0171 "Testing of rotor blade erosion protection systems "

Additional certificates and approvals may be available on request.

### Colours

RAL 7035

### Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	80 ± 2 %
Solids by weight	calculated	85 ± 2 %
Gloss level (GU 60 °)	ISO 2813	glossy (70-90)
Flash point	ISO 3679 Method 1	65 °C
Density	calculated	1.2 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	160 g/l
Hong Kong	Air Pollution Control (VOC) Regulation	Calculated	160 g/l
EU	European Paint Directive 2004/42/CE	Calculated	160 g/l
EU IED	Industrial Emission Directive 2010/75/EU	Calculated	160 g/l
Korea	Korea Clean Air Conservation Act	Calculated	160 g/l

The provided data is typical for factory produced products, subject to slight variation depending on colour.

Gloss description: According to Jotun Performance Coatings' definition.

## Film thickness per coat

### Typical recommended specification range

Dry film thickness	80 - 200	µm
Wet film thickness	100 - 250	µm
Theoretical spreading rate	10 - 4	m <sup>2</sup> /l

Note: These numbers are per non-diluted coat.

In order to achieve the best leading edge protection performance, multi-layer application is needed.

Recommended total DFT: 300-500 µm

Recommended total WFT: 375-625 µm

## Surface preparation

### Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating
Composite	Composites must be fully cured before initiating the surface preparation. The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or medium to fine abrasive paper with grit P80-P120 to impart a scratch pattern to the surface.	Composites must be fully cured before initiating the surface preparation. The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or medium to fine abrasive paper with grit P80-P120 to impart a scratch pattern to the surface.

## Application

### Application methods

The product can be applied by

- Brush:** Recommended. For better levelling and surface appearance, coating can be diluted by Jotun Thinner No.10 that not exceed 30% based on total weight of component A+B. For Max WFT, five coats of 150µm WFT are applied with 1-2 hour(s) drying interval. For min WFT, three coats of 150µm WFT are applied.
- Roller:** Recommended. Use short hair or flocked foam roller to achieve good leveling performance, and reduce orange peel on the surface. Coating can be diluted by Jotun Thinner No.10 that not exceed 30% based on total weight of component A+B. For Max WFT, five coats of 150µm WFT are applied with 1-2 hour(s) drying interval. For min WFT, three coats of 150µm WFT are applied.
- Scraper:** Recommended. See Application Guide.

### Product mixing ratio (by weight)

Jotatop LEP Pro Comp A	1 part(s)
Jotatop LEP Pro Comp B	2 part(s)

### Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 10 / Jotun Thinner No. 26

## Drying and Curing time

Substrate temperature	10 °C	23 °C	40 °C
Surface (touch) dry	6 h	2 h	60 min
Dry to handle	18 h	12 h	7 h
Dry to over coat, minimum	6 h	2 h	1 h
Dried/cured for service	14 d	7 d	5 d

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

Drying and curing times are determined under controlled temperatures and relative humidity below 80 %, and at average of the DFT range for the product.

Note: If overcoating interval exceeds 24 hrs, sanding (grit P120-240) is required prior to re-coating. After sanding, dust is removed with a microfiber cloth and the paint is applied within 1 hr.

**Surface (touch) dry:** The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

**Dry to handle:** Minimum time before the coated objects can be handled without physical damage.

**Dry to over coat, minimum:** The recommended shortest time before the next coat can be applied.

**Dried/cured for service:** Minimum time before the coating can be permanently exposed to the intended environment/medium.

## Induction time and Pot life

<b>Paint temperature</b>	<b>23 °C</b>
Pot life	1 h

The pot life of 1 hour is for Jotatop LEP Pro thinned 20wt% with Jotun Thinner No. 10 on A+B. Without thinning, the pot life is 30 min.

## Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	120 °C	140 °C

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

## Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jotun for specific system recommendation.

Previous coat: polyurethane

## Packaging (typical)

	Weight	Size of containers (litres)
Jotatop LEP Pro Comp A	1 kg	1
Jotatop LEP Pro Comp B	2 kg	5

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

## Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

### Shelf life at 23 °C

Jotatop LEP Pro Comp A	24 month(s)
Jotatop LEP Pro Comp B	24 month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

## Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

## Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

## Colour variation

When applicable, products primarily meant for use as primers or antifouling may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

## Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.