



# Technical data sheet

PROTECTION MADE EASY

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## Polyguard

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### Description and destination of the product

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**Polyguard** is a one-pack moisture curing polyurethane paint, pigmented with specific inert lamellar pigments. Thanks to the special lamellar structure of the pigmentation, a very tight paint film is obtained with excellent water and corrosion resistance. The inert pigmentation and the polyurethane binder provide a high chemical resistance.

These properties make it possible to apply **Polyguard** as coal tar free alternative where normally coal tar products are used.

**Polyguard** is especially recommended for immersion circumstances (seawater).

### Type of binder

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Moisture curing aromatic polyisocyanate prepolymers.

### Type of pigment

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Micaceous iron oxides, magnesium silicates and iron oxide.

### Colour

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Black.

### Gloss

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Mat

## Technical data

- **Density:** 1.55 ± 0.05 g/cm<sup>3</sup> (20°C)
- **Solids content:** 82 (± 2%) in weight  
66 (± 2 %) in volume
- **Viscosity:** 110 (± 5) KU at 20°C
- **VOC:** < 295 g/L (not diluted)  
< 420 g/L (15 % diluted)
- Indicative drying times (R.H. 75%) for 80 micron layer thickness:

	Dustdry	Tackfree	Dry
10°C	2.5 hours	4 hours	8 hours
20°C	1 hour	2.5 hours	6 hours
30°C	40 minutes	1.5 hour	4 hours

- **Theoretical yield:** 7.5 m<sup>2</sup>/L for 80 micron  
6.0 m<sup>2</sup>/L for 100 micron  
4.0 m<sup>2</sup>/L for 150 micron

The practical yield can largely be influenced by the roughness and porosity of the substrate, the applied layer thickness or the losses by airless application.

## Surface preparation

When the waiting time between the successive coats is abnormally prolonged or in extremely polluted areas, the primed surface can become contaminated. All contaminations that hamper the adhesion of the paint should be removed by appropriate means.

Surfaces contaminated with oil and grease should be washed down with solvent, alkaline solutions or emulsifier.

Salt deposits or other water-soluble contaminations should be removed with water and brush, water under high pressure or steam. Possible white rust on zinc dust primers should be removed with water and rigid nylon brush.

**Polyguard** can be applied on top of a primer (**Polyzinc, Monoseal, Polysilco**)

Recommended system for immersion circumstances (seawater):

- Preparation : blasting SA 2.5
- Primer : **Polyzinc YHA 1105**, 50 micron
- Finish : **Polyguard**, 3 x 80 micron

## Use

**Polyguard** can be applied by brush, roller, pneumatic or airless pistol.

	% Dilution	Thinner	Pressure (bar)	Nozzle
Brush	5 – 10 %	<b>Thinner 1</b>	-	-
Roller	5 – 10 %	<b>Thinner 1</b>	-	-
Pneumatic gun	10 – 15 %	<b>Solvatane</b>	3 to 5	1.2 to 1.5 mm
Airless gun	5 – 15 %	<b>Solvatane</b>	100 to 300	0.017" to 0.024"

At extreme temperatures, air humidity circumstances or air movement, **Thinner 1** can be preferred when applying by pistol.

It is always recommended to treat corners, sharp edges, bolts and nuts before applying a uniform coat.

Indicative recoatable times (R.H. 75 %) for 80 micron dry layer thickness :

	Minimum	Maximum
10°C	24 hours	up to 3 months
20°C	6 hours	up to 1 month
30°C	4 hours	up to 1 week

At longer intervals a good cleaning is necessary to avoid intermediate coat contamination which could disturb the adherence of the next coat. The recommended layer thickness is 60 to 100 microns, depending on the system.

The maximum obtainable layer thickness is 120-160 micron dry (inclusive over-layer thickness).

The material can be cleaned with **Solvatane** or **Thinner 1**.

## Application conditions

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**Polyguard** can be applied at temperatures between 0°C and 35°C and air humidity between 30 to 98 %. The temperature of the surface must be 3°C higher than dew point

## Storage stability

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Minimum 2 years in the original, unopened package stored in a dry environment at temperatures between -20°C and +40°C.

## Safety measure

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For detailed information about safety measures, personal protection and transport data of this product, we refer to the safety data sheet.

*The last update of our technical data sheets is always available at our website: [www.libertpaints.be](http://www.libertpaints.be)*

### **Disclaimer**

*The information given in this technical data sheet is only a general product description, based on our experiences and tests and therefore does not represent a specific practical case. Consequently Libert Paints doesn't guarantee the functionality or result and takes no responsibility in this respect.*

*We advise our clients to test the applicability of the product to the nature and the state of the surfaces and to carry out the necessary representative tests in case of doubt. Please contact our R&D department as the occasion arises.*

*Attention: our clients should verify whether the present technical data sheet hasn't been replaced by a more recent version.*