

Baltoflake Ecolife

Product description

This is a styrene free glass flake reinforced unsaturated polyester coating. It is an ultra high build, extremely abrasion resistant and fast curing barrier coating. Can be used as primer, mid coat or finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel, stainless steel, aluminium and approved primers. It can be applied down to +5 °C surface temperature.

Typical use

Recommended for areas subject to extreme mechanical wear and harsh exposure conditions. Recommended for offshore environments, including splash zones, jetties, piles, tidal zones, decks, battery rooms, power stations, exterior of buried tanks, concrete bunds, refineries, bridges, mining equipment and general structural steel where future maintenance is challenging.

Approvals and certificates

NORSOK Standard M-501, Edition 6, Coating system no. 7A - Carbon and stainless steel in the splash zone

When used as part of an approved scheme, this material has the following certification:

- Low Flame Spread in accordance with EU Directive for Marine Equipment. Approved in accordance with parts 5 and 2 of Annex 1 of IMO 2010 FTP Code, or Parts 5 and 2 of Annex 1 of IMO FTPC when in compliance with IMO 2010 FTP Code Ch. 8

Consult your Jotun representative for details.

Additional certificates and approvals may be available on request.

Colours

selected range of colours

Product data

| Property | Test/Standard | Description |
|-----------------------|--------------------------------|-------------|
| Solids by volume | calculated | 98 ± 2 % |
| Gloss level (GU 60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 53 °C |
| Density | calculated | 1.2 kg/l |
| VOC-EU | IED (2010/75/EU) (theoretical) | 5 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 | 600 - 1500 µm |
| Wet film thickness | 650 - 1610 µm |
| Theoretical spreading rate | 1.6 - 0.6 m ² /l |

All vinyl ester and polyester resin systems are subject to some shrinkage during the curing process. This results in a practical spreading rate lower than the theoretically calculated. The shrinkage depends on actual dry film thickness applied and conditions during application.

Surface preparation

Surface preparation summary table

| Substrate | Surface preparation | |
|-----------------|---|---|
| | Minimum | Recommended |
| Carbon steel | Sa 2½ (ISO 8501-1) with a surface profile Medium to Coarse G (ISO 8503-2) | Sa 2½ (ISO 8501-1) with a surface profile Medium to Coarse G (ISO 8503-2) |
| Stainless steel | Cleanliness and surface profile corresponding to the description of Sa 2½ (ISO 8501-1), Fine to Medium G (ISO 8503-2) | Cleanliness and surface profile corresponding to the description of Sa 2½ (ISO 8501-1), Fine to Medium G (ISO 8503-2) |
| Aluminium | Cleanliness and surface profile corresponding to the description of Sa 2½ (ISO 8501-1), Medium to Coarse G (ISO 8503-2) | Cleanliness and surface profile corresponding to the description of Sa 2½ (ISO 8501-1), Medium to Coarse G (ISO 8503-2) |
| Coated surfaces | Clean, dry and undamaged compatible coating | Clean, dry and undamaged compatible coating |

Application

Application methods

The product can be applied by

| | |
|--------|---|
| Spray: | Standard airless spray may be used. Dedicated two component airless spray is an option. |
| Brush: | Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness. |

Mixing ratio table - Additives

The steel temperature shall not be lower than the paint temperature and not more than 20 °C above the paint temperature.

Additive volumes (ml) in 16 litres product.

Due to local regulations, local variants in pack size and filled volume may exist. Note that the amount of additives must be adjusted accordingly.

| Additive | Paint temperature | | | | | |
|---|-------------------|----------|----------|----------|----------|----------|
| | 5-9 °C | 10-14 °C | 15-19 °C | 20-24 °C | 25-29 °C | 30-34 °C |
| Jotun Inhibitor 53 | | 15 | 30 | 40 | 50 | 60 |
| Jotun Peroxide 13. Norox KPM or Trigonox 61 | 400 | 200 | 200 | 200 | 200 | 200 |

For plural pump two-component airless spray equipment:

The recommended dosage of peroxide (Jotun Peroxide 13, Andonox KPM or Trigonox 61) is for substrate temperatures:

| | |
|--------------|-----------|
| Temperature: | Dosage: |
| 5-9°C: | 2.5 vol% |
| 10-40°C: | 1.25 vol% |

In special cases where there is a need of a faster cure or equipment restrictions dictates using extra peroxide also at substrate temperatures above 10°C, a higher dosage can be acceptable when shorter overcoating time is ensured.

The temperature of base and curing agent is recommended to be 18 °C or higher when the product is mixed. The potlife is stated for 1.25 vol% peroxide and a temperature of 23°C, and to have a good control of time before gelling in the hoses etc when application is done by 2K equipment, it is recommended to stay close to that temperature of 23°C, and within a temperature range of maximum +/- 5°C (i.e. 18-28°C).

WARNING:

Accelerators must never come in direct contact with peroxides.

All peroxides must be stored in a dark and cool storage room (below 25 °C), and kept away from all kind of combustible materials. Exposure to direct sunlight must be avoided. Use only original or approved containers. Empty containers should be washed with water and kept in separate storage/containers.

The peroxide may catch fire if exposed to sparks or to hot metal dust from grinding or other mechanical work. The curing reaction develops heat. For leftovers of mixed paint it is recommended to fill the tin with water to avoid excessive heat development.

Thinner/Cleaning solvent

Thinner: Vinyltoluene

Cleaning solvent: Jotun Thinner No. 17 / Jotun Thinner No. 27

When thinners are used as a cleaning solvent, the use must be in accordance with prevailing local regulations.

Guiding data for airless spray

Nozzle tip (inch/1000): 27-35

Pressure at nozzle (minimum): 150 bar/2100 psi

Drying and Curing time

| Substrate temperature | 5 °C | 10 °C | 15 °C | 19 °C | 23 °C | 30 °C | 40 °C |
|--|-------|-------|-------|-------|--------|--------|--------|
| Using two component airless spray | | | | | | | |
| Surface (touch) dry | 2.5 h | 2.5 h | 2 h | 1 h | 45 min | 45 min | 45 min |
| Walk-on-dry | 2.5 h | 2.5 h | 2 h | 1 h | 45 min | 45 min | 45 min |
| Dry to over coat, minimum | 2.5 h | 2.5 h | 2 h | 1 h | 45 min | 45 min | 45 min |
| Dried/cured for service | 3 d | 2 d | 2 d | 12 h | 4 h | 4 h | 4 h |
| Using one component airless spray | | | | | | | |
| Surface (touch) dry | 3 h | 3 h | 2.5 h | 2 h | 2 h | 2 h | 2 h |
| Walk-on-dry | 3 h | 3 h | 2.5 h | 2 h | 2 h | 2 h | 2 h |
| Dry to over coat, minimum | 3 h | 3 h | 2.5 h | 2 h | 2 h | 2 h | 2 h |
| Dried/cured for service | 3 d | 3 d | 2 d | 2 d | 1 d | 1 d | 1 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 85 %, and at average of the DFT range for the product.

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

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other 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.

Paint temperature

23 °C

| | |
|----------|-----------|
| Pot life | 15-20 min |
|----------|-----------|

The potlife is stated for 1.25vol% peroxide and a temperature of 23°C and it will be reduced at higher temperatures.

After addition of inhibitor for one component ordinary airless spray according to the mixing table: 35 min.

Heat resistance

| | Temperature | |
|---------------------|-------------|--------|
| | Continuous | Peak |
| Dry, atmospheric | 90 °C | 100 °C |
| Immersed, sea water | 50 °C | 50 °C |

Peak temperature duration max. 1 hour.

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

Note that the coating will be resistant to various immersion temperatures depending on the specific chemical and whether immersion is constant or intermittent. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

Colour variation

When applicable, products primarily meant for use as primers or antifoulings 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.
