

Technical Data

Baltoflake Ecolife



Product description

This is a glass flake reinforced unsaturated polyester coating. It is a very high build, extremely abrasion resistant and fast curing barrier coating. Can be used as a single coat or a two coat system in atmospheric and immersed environments. Suitable for properly prepared carbon steel and concrete substrates. It can be applied down to +5 °C surface temperatures.

Recommended 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.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (µm)	600	1500	1000
Film thickness, wet (µm)	650	1610	1080
Theoretical spreading rate (m ² /l)	1,55	0,62	0,93

Comments

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.

Physical properties

Colour	Limited number
Solids (vol %)*	98 ± 1
Flash point	53 °C ± 2 (Setaflash)
VOC	20 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Semiflat
Gloss retention	Good
Water resistance	Excellent
Abrasion resistance	Excellent
Solvent resistance	Very good
Chemical resistance	Very good
Flexibility	Limited
Compatibility with cathodic protection	Very good

*Theoretically calculated

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel

Blast cleaning to Sa 2½. (ISO 8501-1:2007). Roughness: using abrasives suitable to achieve a surface roughness of Grade Medium G (50-85µm, Ry5) (ISO 8503-2).

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress until fully cured.

Application methods

Spray	Preferably 2-comp. airless spray. Application with 1-comp. ordinary airless spray is also possible, provided that inhibitor is added.
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	2-comp. airless spray: 1,25 vol.% Jotun Peroxide 13 at temperatures 10-35 °C. 2,5 vol.% Jotun Peroxide 13 at temperatures 5-10 °C. 1-comp. ordinary airless spray: Addition of inhibitor and peroxide according to table below. Jotun Peroxide 1 can be used instead of Jotun Peroxide 13 at temperatures above 15 °C.
Pot life (23°C)	15-20 minutes (Reduced at higher temperatures). After addition of inhibitor for 1-comp. ordinary airless spray: 35 minutes.
Thinner	Vinyltoluene. If needed max. 5 % Vinyltoluene.
Cleaner	Jotun Thinner No. 17 or Jotun Thinner No. 27.
Guiding data airless spray	
Pressure at nozzle	15 - 25 MPa (150-250 kp/cm ² , 2100-4000 psi.)
Ratio/Capacity:	>45:1, min. 12 l per minute. Slow moving piston.
Nozzle tip	0,69 - 1.09 mm (0.027 - 0.043").
Spray angle	40-80°, best 60°.
Filter	To be removed.
Ratio/Capacity:	
Note	For further details please see separate "Working Manual". Approved alternatives to Jotun Peroxide 13 can be used. Contact Jotun, Technical Service Department.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate
- * Typical mixing ratio as per TDS

Using 2-comp. airless spray

Substrate temperature	5°C	10°C	15°C	23°C	40°C
Surface dry	2,5 h	2,5 h	2 h	45 min	45 min
Through dry	2,5 h	2,5 h	2 h	45 min	45 min
Cured	3 d	2 d	2 d	12 h	4 h
Dry to recoat, minimum	2,5 h	2,5 h	2 h	45 min	45 min
Dry to recoat, maximum ¹	42 h	42 h	24 h	28 h	7 d

Using 1-comp. airless spray

Substrate temperature	10°C	15°C	23°C	40°C
Surface dry	3 h	2,5 h	2 h	2 h
Through dry	3 h	2,5 h	2 h	2 h
Cured	3 d	2 d	2 d	1 d
Dry to recoat, minimum	3 h	2,5 h	2 h	2 h
Dry to recoat, maximum ¹	42 h	24 h	28 h	7 d

1. The surface should be free from chalking and contamination prior to application. If the maximum dry to recoat time is exceeded, please contact Jotun for advice.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Baltoflake Ecolife	1 x 900 - 1100 µm	(Dry Film Thickness)
or		
Baltoflake Ecolife	2 x 600 - 750 µm	(Dry Film Thickness)

Other systems may be specified, depending on area of use

Mixing Ratio Table - Additives

Choose peroxide and, if necessary, inhibitor according to the table below. Inhibitor or accelerator (if used) must be thoroughly mixed with Baltoflake Ecolife before adding the required amount of Jotun Peroxide. Mechanical agitation for one minute or more.

The minimum steel temperature is 5 °C.

The steel temperature shall be within 10 °C below and 20 °C above the paint temperature.

Additive volume (ml) in 16 litres product.

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

Note: Check temperature of pump during application. Friction in piston may cause increase in temperature. If this should happen, keep pump going to get heated Baltoflake Ecolife out as quickly as possible.

If the temperature is ranging near the max. temperature in a zone, it is recommended to reduce the content of peroxide/accelerator respectively, or to increase the content of inhibitor.

Approved alternatives to Jotun Peroxide 13 can be used. Please contact your local Jotun office.

Warning: Accelerator and peroxide must never be mixed directly together.

Storage

The product must be stored below 25°C and in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.

SHELF LIFE: 6 months, at 23°C, subject to re-inspection thereafter. Shelf life very much depends on temperature. Lower temperatures (if possible below freezing point) will lengthen the shelf life considerably, while high temperature may lead to gelling in the tin.

Peroxide must be kept in their original containers. No other materials shall be stored in the same room as peroxides. Always consult your local/national authorities for storing peroxides!

Handling

Handle peroxide with care. Avoid that it comes in contact with flameable substances. Before handling, see safety data sheet for peroxide.

Packing size

20 litre unit: 16 litres in a 20 litre container.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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