

Technical Data

Baltoflake



Product description

A glass flake reinforced unsaturated polyester coating. It is an ultra 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.

This technical datasheet is also valid for Baltoflake FC.

Baltoflake FC shall be used as the second coat in a two coat system or as single coat in environments where temperatures are typically above 25 °C.

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	750
Film thickness, wet (µm)	650	1650	820
Theoretical spreading rate (m ² /l)	1,52	0,61	1,21

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.

Approvals

APAS approved to specification 2917, 2917F, 2917P and 2917S
Norsok M501/ISO 20340

Physical properties

Colour	Limited number
Solids (vol %)*	96 ± 2
Flash point	34 °C ± 2 (Setaflash)
VOC	75 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Semiflat
Gloss retention	Very 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

Hong Kong rules: Category of paints - Other vessel coatings; VOC 80 gms/ltr HK EPD method (Ready to use); Exempt compound - N/A; Specific gravity: 1.25 (A+B); Both VOC and Specific gravity values provided are typical values, subject to changes when different colour involved.

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 10°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Maximum temperature should be 45°C. Relative humidity should be maximum 85 %.

Good ventilation is required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress until cured.

Application methods

Spray	Use normal airless spray or two-comp. airless spray equipment
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.
Roller	May be used for small areas but not recommended for first primer coat, however when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	See separate table.
Pot life (23°C)	45 - 55 minutes (Reduced at higher temp.)
Thinner	Styrene. If needed max. 5 % styrene.
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°
Filter	To be removed.
Ratio/Capacity:	
Note	For further details please see separate "Working Manual".

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

Baltoflake:

Substrate temperature	10°C	23°C	40°C
Surface dry	3 h	2 h	2 h
Through dry	5 h	2 h	2 h
Cured	4 d	2 d	1 d
Dry to recoat, minimum	5 h	2 h	2 h
Dry to recoat, maximum ¹	20 h	12 h	12 h

Baltoflake FC *:

Substrate temperature	23°C	40°C
Surface dry	2 h	2 h
Through dry	2 h	2 h
Cured	2 d	1 d
Dry to recoat, minimum		
Dry to recoat, maximum		

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

*: **Baltoflake FC** should not be over coated with either Baltoflake FC nor Baltoflake.

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

Environment temperatures typically below 25 °C:

Baltoflake 1 x 750 - 1000 µm (Dry Film Thickness)

or

Baltoflake 2 x 600 - 750 µm (Dry Film Thickness)

Environment temperatures typically above 25 °C:

Baltoflake FC 1 x 750 - 1000 µm (Dry Film Thickness)

or

Baltoflake 1 x 600 - 750 µm (Dry Film Thickness)

Baltoflake FC 1 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 or accelerator according to the table below. Inhibitor or accelerator (if used) must be thoroughly mixed with Baltoflake before adding the required amount of peroxide. Mechanical agitation for one minute or more.

The minimum steel temperature is 10 °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					
	10-14 °C *	15-19 °C *	20-24 °C *	25-29 °C	30-34 °C	35-40 °C
Jotun Accelerator Co1P	300					
Jotun Peroxide 1	300	300	200	200	200	200
Jotun Inhibitor 51				200	200	400

* : Not applicable for Baltoflake FC

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 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 1 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.

Accelerator and 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. Accelerator and peroxide must never be mixed directly together. Before handling, see safety data sheet for accelerator and 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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ISSUED 4 FEBRUARY 2014 BY JOTUN
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