

Baltoflake FC

Product description

This is a glass flake reinforced unsaturated polyester coating. It is an ultra high build, extremely abrasion resistant and fast curing barrier coating. Suitable as single coat system on properly prepared carbon steel, stainless steel and aluminium and as finish coat in an unsaturated polyester (Baltoflake) system. Not to be overcoated by itself or other unsaturated polyester/vinylester systems.

Typical use

For application temperatures above 77 °F (25 °C) , Baltoflake FC is recommended either as a single coat system or as a finish coat in a 2-coat system with Baltoflake as first coat and Baltoflake FC as second coat. 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. 1 - Carbon steel with maximum operating temperature <248 °F (120 °C)

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

Additional certificates and approvals may be available on request.

Other variants available

Baltoflake

Refer to separate TDS for each variant.

Colors

selected range of colors

Product data

Property	Test/Standard	Description
Solids by volume	calculated	96 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	93 °F (34 °C)
Density	calculated	1.2 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	0.67 lbs/gal

The provided data is typical for factory produced products, subject to slight variation depending on color.
Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	24 mils (600 µm)	- 59 mils (1500 µm)
Wet film thickness	26 mils (650 µm)	- 65 mils (1650 µm)
Theoretical spreading rate	60 ft ² /gal (1.5 m ² /l)	- 20 ft ² /gal (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

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1) with surface profile minimum 45 µm or NACE No. 2 / SSPC SP-10 with minimum surface profile 1.7 mils (ASTM D 4417, method A)	Sa 2½ (ISO 8501-1) with surface profile minimum 45 µm or NACE No. 2 / SSPC SP-10 with minimum surface profile 1.7 mils (ASTM D 4417, method A)
Aluminum	Cleanliness and surface profile corresponding to the description of NACE No. 2 / SSPC SP-10, (Sa 2½ (ISO 8501-1), Medium to Coarse G (ISO 8503-2))	Cleanliness and surface profile corresponding to the description of NACE No. 2 / SSPC SP-10, (Sa 2½ (ISO 8501-1), Medium to Coarse G (ISO 8503-2))
Stainless steel	Cleanliness corresponding to the description of Sa 2½ (ISO 8501-1), Surface profile Fine to Medium G (ISO 8503-2) or SSPC-SP 10 / NACE No. 2, Surface profile 1.5 – 2.0 mils	Cleanliness corresponding to Sa 2½ (ISO 8501-1), Surface profile Medium to Coarse G (ISO 8503-2) or NACE No. 2 / SSPC SP-10, Surface profile 60-110 µm
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.

Mixing ratio table - Additives

The steel temperature shall not be lower than the paint temperature and not more than 68 °F (20 °C) above the paint temperature.

Additive volumes (ml) in 16 liters 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		
	77-84.2°F	86-93.2°F	95-104°F
Jotun Peroxide 1, Norox KP-9 or Butanox M-50	200	200	200
Jotun Inhibitor 51	200	200	400

For other additive suppliers please consult Jotun.

WARNING:

Accelerators must never come in direct contact with peroxides.

All peroxides must be stored in a dark and cool storage room (below 77 °F (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: Styrene

Thinning max: 5 %

Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.

Note: Korean VOC regulation "Korea Clean Air Conservation Act" and its corresponding thinning limit will prevail over recommended thinning volumes.

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

Temperatures:

-10°C = 14°F / -5°C = 23°F / 0°C = 32°F / 5°C = 41°F / 10°C = 50°F / 15°C = 59°F / 23°C = 73°F / 35°C = 95°F / 40°C = 104°F / 100°C = 212°F

Substrate temperature	23 °C	40 °C
Surface (touch) dry	2h	2 h
Walk-on-dry	2h	2 h
Dried/cured for service	2d	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.

Baltoflake FC should not be overcoated with itself or Baltoflake.

Procedure for repair of minor areas are found under Repair of coating system.

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.

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

Temperatures: 15°C = 59°F / 23°C = 73°F

Paint temperature	23 °C
Pot life	45 min

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	90 °C	100 °C
Immersed, sea water	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.

Color variation

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

Color and gloss retention on topcoats/finish coats may vary depending on type of color, 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.
