New Guard Coatings Group

A global reputation to protect.

The information herewith is given with the best of New Guard Coatings Group knowledge.

Rights are reserved to change and update the data without notice.

This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

Baltoflake

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. 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.

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.
For application temperatures above 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.

Approvals and certificates

APAS approved to specification 2917, 2917F, 2917P and 2917S
NORSOK Standard M-501, Edition 6, Coating system no. 1 - Carbon steel with maximum operating temperature <120 °C
NORSOK Standard M-501, Edition 6, Coating system no. 4 - Walkways, escape routes and lay down areas
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 FC

Refer to separate TDS for each variant.

Colours

selected range of colours

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	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)	80 g/l
VOC-EU	IED (2010/75/EU) (theoretical)	4 g/l
VOC-Korea	Korea Clean Air Conservation Act (tested) (Max. thinning ratio included)	47 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	-	1650	µm
Theoretical spreading rate	1.5	-	0.6	m²/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 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)
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)
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 Sa 2½, 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.

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.

	Paint temperature					
Additive	10-14 °C	15-19 °C	20-24 °C	25-29 °C	30-34 °C	35-40 °C
Jotun Accelerator CO1P or Accelerator 9802 P	300					
Jotun Peroxide 1, Norox KP-9 or Butanox M-50	300	300	200	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 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 recommended, but if needed max. 5 %. 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

Substrate temperature	**10 °C**	**23 °C**	**40 °C**
Surface (touch) dry	3 h	2 h	2 h
Walk-on-dry	5 h	2 h	2 h
Dry to over coat, minimum	5 h	2 h	2 h
Dried/cured for service	4 d	2 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.

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.

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	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.

Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jotun for specific system recommendation.

Previous coat:	unsaturated polyester, vinyl ester
Subsequent coat:	unsaturated polyester, polyurethane, polysiloxane

Packaging (typical)

	Volume (litres)	**Size of containers (litres)**
Baltoflake	16	20

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Storage temperature not to exceed 25 °C.

Shelf life at 23 °C

Baltoflake	6 month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

Health and safety

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

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.