

Technical Data

Baltoflake Ecolife



Product description

A quick curing, high build, abrasion resistant styrene free glass flake reinforced polyester coating, that gives long time corrosion protection.

Recommended use

Steel structures in general and in particular items subject to extreme mechanical wear. May also be used for protection of aluminium and concrete (special designed systems). Can be applied as a non-skid coating system for walkways, escape routes and deck areas.

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.% Norpol Peroxide 13 at temperatures 10 - 35°C.
2,5 vol.% Norpol Peroxide 13 at temperatures 5 - 10°C.

1-comp. ordinary airless spray:

Addition of inhibitor and peroxide according to table on page 3.
Norpol Peroxide 1 can be used instead of 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

Vinyl toluene. 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/cm², 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 Norpol 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 | 7 d | 7 d | 18 h | 48 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 | 7 d | 18 h | 48 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 BY USE OF 1-COMPONENT AIRLESS SPRAY

Temperature of steel and paint should not be lower than 10°C.

| Steel and paint temp. °C | Addition of Norpol Inhibitor 9853 | | Addition of Norpol Peroxide 13 | |
|-----------------------------|-----------------------------------|---------------------------------------------|--------------------------------|---------------------------------------------|
| | Volume percent | ml. into 16 litres of Baltoflake Ecolife | Volume percent | ml. into 16 litres of Baltoflake Ecolife |
| 10 - 15 | 0.10 | 16 | 1.25 | 200 |
| 15 - 20 | 0.17 | 27 | 1.25 | 200 |
| 20 - 25 | 0.25 | 40 | 1.25 | 200 |
| 25 - 30 | 0.32 | 51 | 1.25 | 200 |
| 30 - 35 | 0.38 | 60 | 1.25 | 200 |

The temperature of the paint should never be more than 5°C higher than the steel temperature. The inhibitor should be mixed thoroughly with Baltoflake Ecolife before adding the required amount of Norpol Peroxide 13. Mechanical agitation for one minute or more is necessary to secure proper mixing of peroxide with the main component.

Note: Check temperature of pump during application. Friction in piston may cause increase in temperature. If this should happen, keep pump going to get the heated product out as quickly as possible, and then wash the equipment.

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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ISSUED 5 DECEMBER 2012 BY JOTUN
THIS DATA SHEET SUPERSEDES THOSE PREVIOUSLY ISSUED