

Technical Data

CHEMFLAKE SPECIAL



Product description

Chemflake Special is a high build glass flake reinforced vinyl ester coating, specially designed for high temperature service.

Recommended use

Steel in aggressive environments. For maximum corrosion and chemical protection also in high temperature environment. May also be used for protection of aluminium and concrete (special designed systems).

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	600	1000	750
Film thickness, wet (μm)	625	1050	780
Theoretical spreading rate (m^2/l)	1.6	0.96	1.28

Physical properties

Colour	Red and White
Solids (vol %)*	96 \pm 2
Flash point	34°C \pm 2 (Setaflash)
Gloss	Semiflat
Water resistance	Excellent
Abrasion resistance	Excellent
Solvent resistance	Excellent
Chemical resistance	Excellent
Flexibility	Limited

*Measured according to ISO 3233:1998 (E)

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

Cleanliness: Blast cleaning to min. Sa 2 ½ (ISO 8501 1:1988), Roughness: use suitable abrasives to achieve Grade Coarse G (85 - 130 μm , 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 15°C and at least 3°C above the dew point of the air. The temperature and the relative humidity should be 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 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.

Application data

Mixing ratio (volume)

Choose quantity of curing agent, accelerator and inhibitor according to the table below. Inhibitor or accelerator must be thoroughly mixed with Chemflake Classic before adding the required amount of MEK-peroxide. Mechanical agitation for one minute or more.

Note:

Check temperature of pump during application. Friction in piston may cause increase in temperature. If this should happen, get the Chemflake Classic 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 Norpol Catalysts can be used.
Please contact Jotun Paints, Technical Service Department.

Warning:

Accelerator 9802 and MEK-peroxide must never be mixed directly together.

Be sure that steel temperature is equal or higher than paint temperature.

Steel and paint temperature:

40° C -----	0.2 vol% (30 ml)NORPOL Inhibitor 9853
	1.4 vol% (225 ml) NORPOL Accelerator 9802
	0.6 vol% (100 ml) NORPOL Accelerator 9826
	2.2 vol% (350 ml) NORPOL Catalyst no. 1 or 11
35° C -----	1.40 vol% (225 ml) NORPOL Accelerator 9802
	0.6 vol% (100 ml) NORPOL Accelerator 9826
	2.2 vol% (350 ml) NORPOL Catalyst no. 1 or 11
30° C -----	1.75 vol% (280 ml) NORPOL Accelerator 9802
	0.6 vol% (100 ml) NORPOL Accelerator 9826
	2.2 vol% (350 ml) NORPOL Catalyst no. 1 or 11
25° C -----	2.0 vol% (320 ml) NORPOL Accelerator 9802
	0.6 vol% (100 ml) NORPOL Accelerator 9826
	2.5 vol% (400 ml) NORPOL Catalyst no. 1 or 11
20° C -----	2.25 vol% (360 ml) NORPOL Accelerator 9802
	0.6 vol% (100 ml) NORPOL Accelerator 9826
	2.5 vol% (400 ml) NORPOL Catalyst no. 1 or 11
15° C -----	

Pot life (23°C)	25 - 50 minutes (reduced at higher temp.)
Cleaner	Acetone or Jotun Thinner No. 17/23.
Guiding data airless spray	
Pressure at nozzle	15 - 25 MPa (150-280 kp/cm ² , 2100-4000 psi.).
Ratio/Capacity:	> 45:1. Min. 12 l per minute. Slow moving piston.
Nozzle tip	0.86 - 1.14 mm (0.034 - 0.045").
Spray angle	40 - 80°
Filter	To be removed.
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

Substrate temperature	10°C	23°C	40°C
Surface dry	8 h	4 h	2 h
Through dry	8 h	4 h	2 h
Cured	8 d	4 d	2 d
Dry to recoat, minimum	8 h	4 h	2 h
Dry to recoat, maximum ¹	1 h	1 h	1 h

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 Paints 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

On steel:

Chemflake Special **2 x 750 µm** **(Dry Film Thickness)**

Holiday detector after 1st coat: NACE RPO 188-88. (400 volt per 100 µm)

Other systems may be specified, depending on area of use

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.

Handling

SHELF LIFE: 4 months, subject to re-inspection thereafter. Shelf life very much depends on temperature. Lower temperatures (if possible below freezing point) will prolong the shelf life considerably, while high temperature may lead to gelling in the tin.

Packing size

16 L. (20 kg.)

Packing may vary from country to country according to local requirements.

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 is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

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