

# Technical Data

## Chemflake Special



### Product description

A high build glass flake reinforced vinyl ester coating, specially designed for high temperature service.

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### 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).

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### Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry ( $\mu\text{m}$ )	600	1000	750
Film thickness, wet ( $\mu\text{m}$ )	650	1080	800
Theoretical spreading rate ( $\text{m}^2/\text{l}$ )	1,55	0,93	1,24

### 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.

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### Physical properties

Colour	Red, White
Solids (vol %)*	96 $\pm$ 2
Flash point	34°C $\pm$ 2 (Setaflash)
VOC	36 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Semiflat
Water resistance	Excellent
Abrasion resistance	Excellent
Solvent resistance	Excellent
Chemical resistance	Excellent
Flexibility	Limited

\*Theoretically calculated

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## 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 1:2007). Roughness: use suitable abrasives to achieve Grade Coarse G (75 - 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.

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## 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.

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## Application methods

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|--------------|---|
| <b>Spray</b> | Use normal airless spray or two-comp. airless spray equipment   |
| <b>Brush</b> | Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness. |
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## Application data

### Mixing ratio (volume)

Choose quantity of peroxide, accelerator and inhibitor according to the table below. Inhibitor and accelerator must be thoroughly mixed with Chemflake Special before adding the required amount of 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 product 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 Peroxide can be used. Please contact Jotun, Technical Service Department.

#### Warning:

Accelerator 9802 and 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 Peroxide 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 Peroxide 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 Peroxide 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 Peroxide 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 Peroxide 1 or 11
15° C -----	

### Pot life (23°C)

35 - 45 minutes.

### Thinner

Styrene. Max 5% Styrene.

### Cleaner

Jotun Thinner No. 17/23/27.

### Guiding data airless spray

#### Pressure at nozzle

15 - 25 MPa (150-280 kp/cm<sup>2</sup>, 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	15°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 <sup>1</sup>	36 h	24 h	12 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 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.

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## Typical paint system

On steel:

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

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

Tankguard Holding Primer 1 x 40 µm can be used as a temporary protection before the full system is applied.

**Other systems may be specified, depending on area of use**

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## 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: 4 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!

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## 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.

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## Packing size

20 litre unit: 16 litres in a 20 litre container .

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## 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.**

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### 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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