



**JOTUN**

# Chemflake

Protective coatings for storage tank interiors



# Chemflake

A range of easy to apply, fast to cure, long-lasting storage tank internal coatings

Maintenance of older tanks is a continuing problem with many tanks never having previously been protected. In addition, together with increasing legislation and concern for the environment, protection of tanks can become a serious economic burden.

Traditionally storage tank interiors have been protected by multi-layers of various types of epoxy laminate. Today, in contrast, long lasting protection can easily be achieved with the application of Chemflake specialised protective coatings.

## **Specifically designed for lasting, economical protection of storage tanks**

The Chemflake range of internal tank linings enables a coating to be selected specifically for the environment in which the tank operates and the product stored.

Chemflake products are advanced glass flake reinforced vinyl ester coatings that outperform traditional systems.

Chemflake products will protect the internal surfaces of the tank from corrosion and will also protect the stored product from contamination.

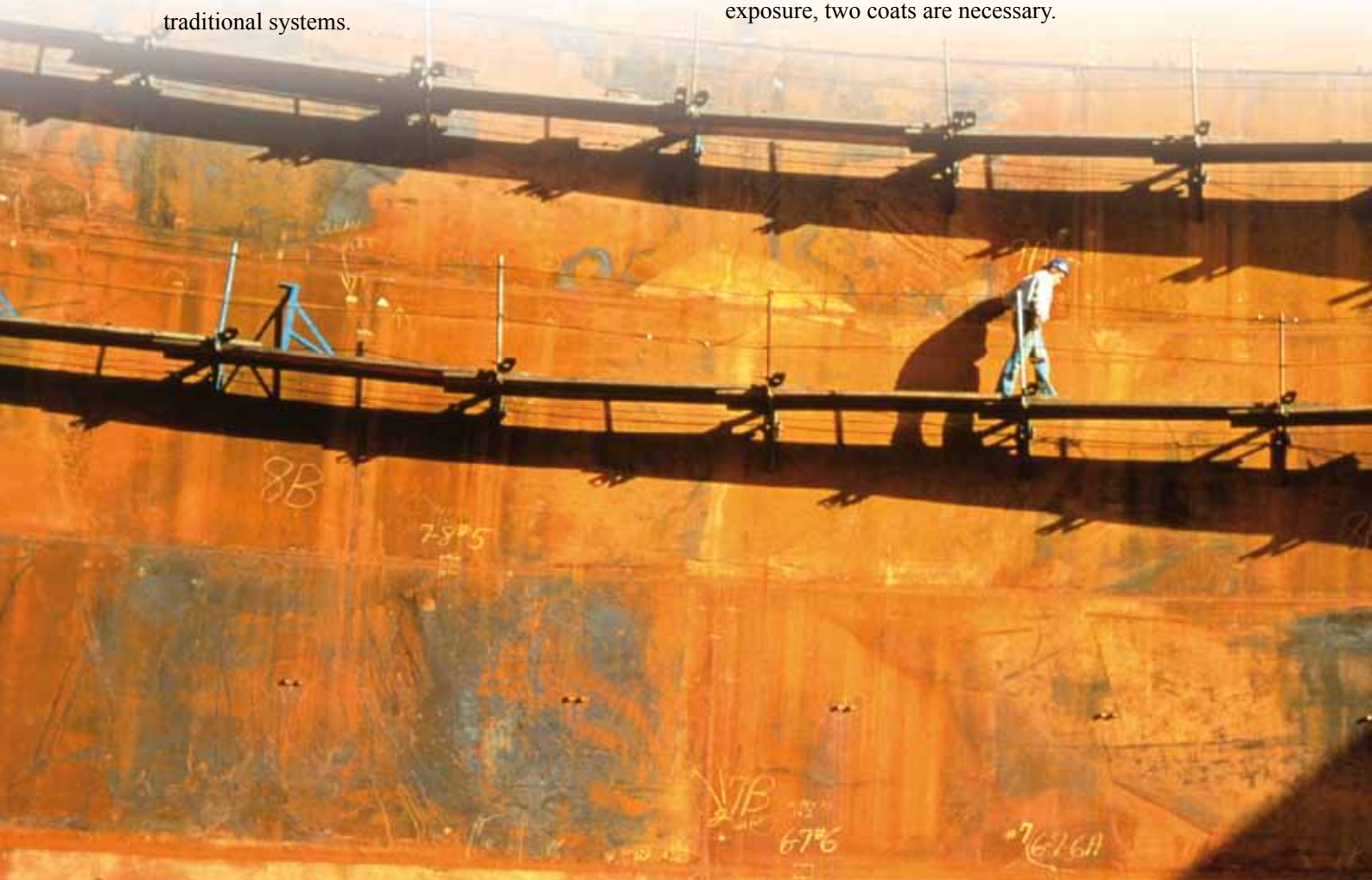
They will also meet current and proposed VOC and emissions-related environmental legislation.

## **Downtime, the source of higher costs**

When considering alternative coating systems it is essential to take into account the indirect costs incurred through downtime. Waiting around for application to be completed and for curing of the system – what is the effect of this idle time on the operation of the tank?

## **Less downtime, greater savings**

Chemflake products are designed to deliver major reductions in application time and shorter curing – in some cases only one coat may be required. Reduced overcoating intervals means substantial time saving where, with severe chemical exposure, two coats are necessary.



# Chemflake

## The benefits

### Economical

- High volume solids and high dry film thickness in one or two coats
- Rapid curing and overcoating
- Reduces maintenance costs

### Easy to apply

- Apply by standard airless spray or 2 component spray units
- Saves time and labour

### Prolonged lifetime

- Solid glassflake protection throughout the entire coating for maximum adhesion

### Time saving

- Cures fast
- Can be applied in one or two coats of 600–1000 µm per coat

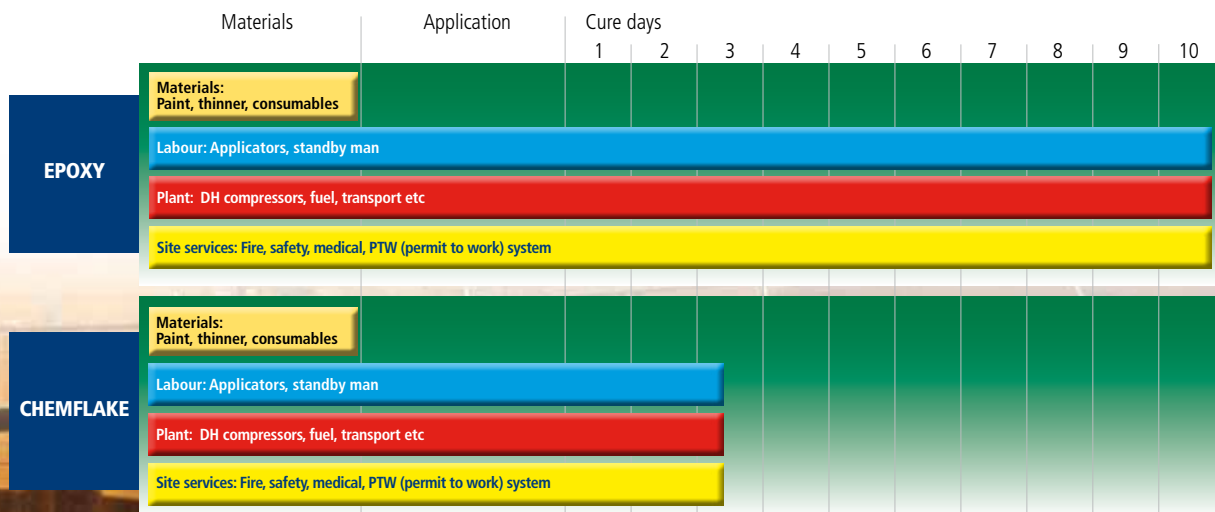
### Versatile

- Resistant to most commonly traded solvents and chemicals

### Temperature resistant

- Immersed – up to 100°C, depending upon service criteria
- Temperature resistant in dry conditions up to 150°C without decomposition

## Estimated costs for 'like for like' specification



# Chemflake Special

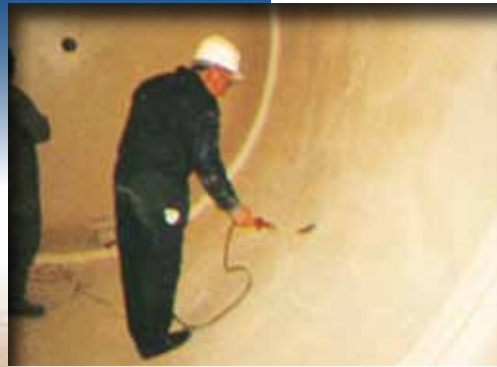
## Solvent-less vinyl ester glass flake coating

- Ultra high build range up to 600–750µm per coat
- Pit filling capability
- Re-coat after 2–3 hours
- Rapid cure – tank in commission 72 hours
- 1–2 coat system
- Acid resistant
- Resistant against crude oil up to 90°C
- Temperature resistance 85°C in seawater
- Diverse track record
- VOC compliant to current European legislation
- Approved by Statens Provningsanstalt, the official Swedish Testing Institute, for the internal protection of tanks containing lead-free petrol. The approval is based on a range of tests, including adhesion and impact resistance following immersion in various aggressive liquids. The tests were carried out in collaboration with Allards Varkstader AB, the Swedish tank manufacturers.

One coat and finished!



*After blast cleaning to Sa 2½, apply Chemflake Special*



*Ready in 72 hours. Final inspection*

# Chemflake CV

## The Conductive Version of Chemflake

Chemflake CV is a glass flake reinforced high build vinyl ester coating with high conductivity.

Recommended for application to:

- steel in aggressive environments
- gasoline or bulk crude tanks where an anti-static coating is required

# Chemclear

## Pre-accelerated clear vinyl ester coating

Chemclear is recommended for use as a sealer/size on concrete surfaces. It can be used in combination with glassfibre as a laminating resin.

### Typical Chemflake systems\*

Substrate	Coating	Main use	Vol. sol. %	VOC gm <sup>2</sup> /l	DFT µm/coat	Number of coats
<b>Steel</b>	Chemflake Special	Crude Oil 90°C, wide range of chemicals, acids and alkalis at elevated temperatures	96	60	600–1500	2
	Chemflake CV	As main use of Chemflake Special but where a conductive coating is required	96	60	600–1500	1 or 2
<b>Concrete</b>	Chemclear	Silos and chemical/crude tank containment	96	60	150	1
	Chemflake Special	Silos and chemical/crude tank containment	96	60	600–1500	2

(Chemflake Touch up sets are also available if required)

\* Indications of main use only. Discuss specific requirements with your Jotun Coatings Advisor together with reference to relevant product resistance list. Where a holding primer may be required consult your Jotun Coatings Advisor

### Case histories

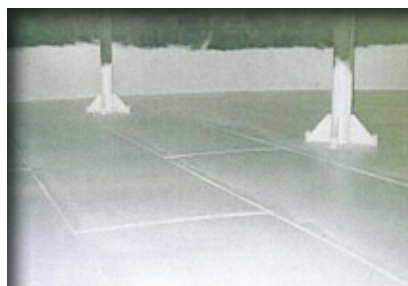
#### Studsrup Power Plant Denmark

Main system for internal use in chambers for filters, supporting flue canals and absorber tanks.

Substrate: Carbon steel  
 Exposure: Chemicals  
 Surface prep: Sa 2½  
 Area: 53,000 m<sup>2</sup>  
 System: 2 x 600 µm Chemflake Special  
**Total: 1200 µm DFT**



Studsrup Power Plant



Samarec BP Al Jouf

#### Samarec BP Al Jouf Saudi Arabia

Chemflake applied in one 8 hour shift. Tank returned to service after 3 days.

Substrate: Carbon steel  
 Exposure: Hydrocarbons  
 Surface prep: Sa 2½  
 Area: Approx. 4,000 m<sup>2</sup>  
 System: 2 x 750 µm Chemflake Special  
**Total: 1500 µm DFT**

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