



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.

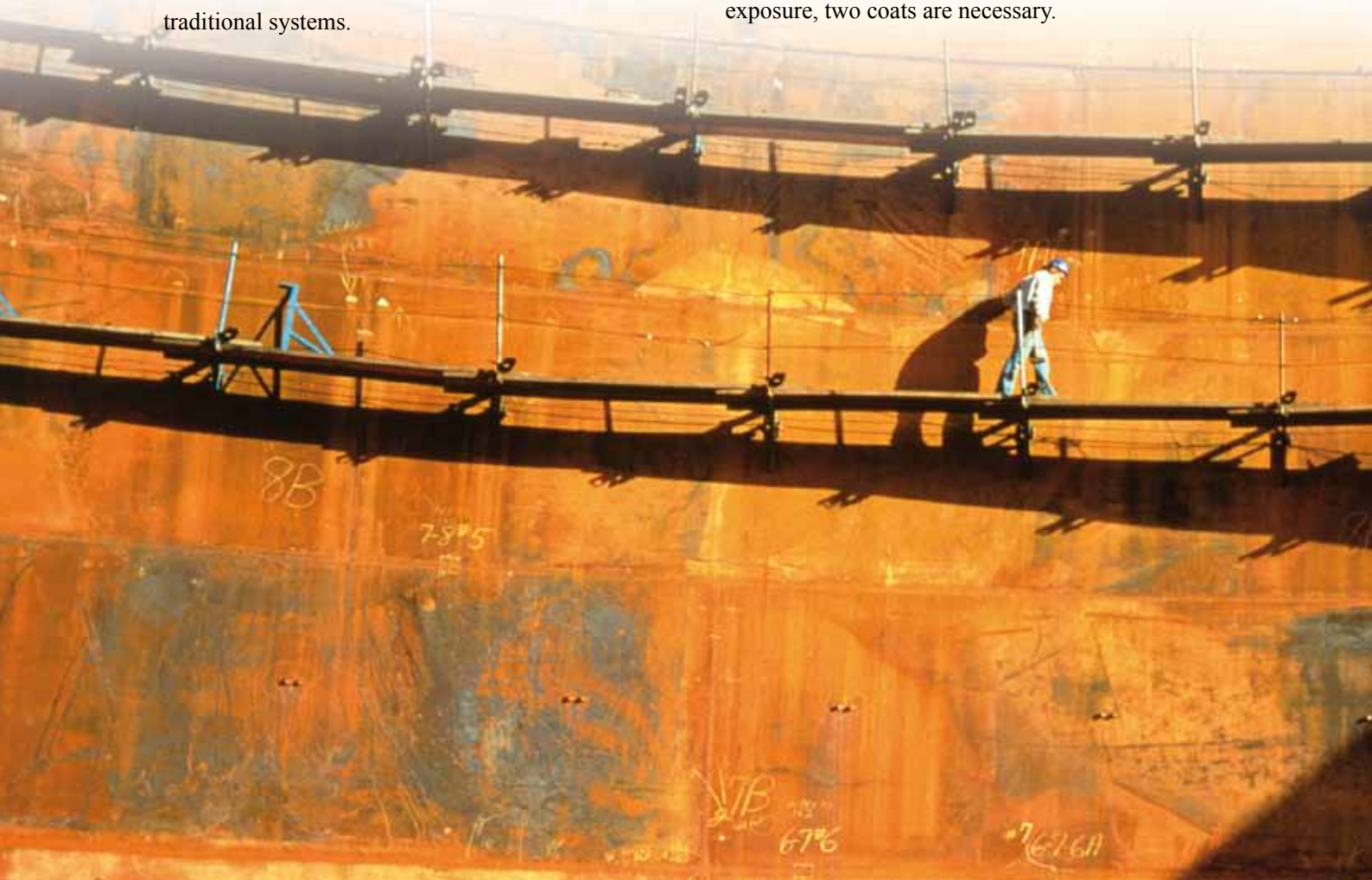
They will also meet current and proposed VOC and emissions-related environmental legislation.

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

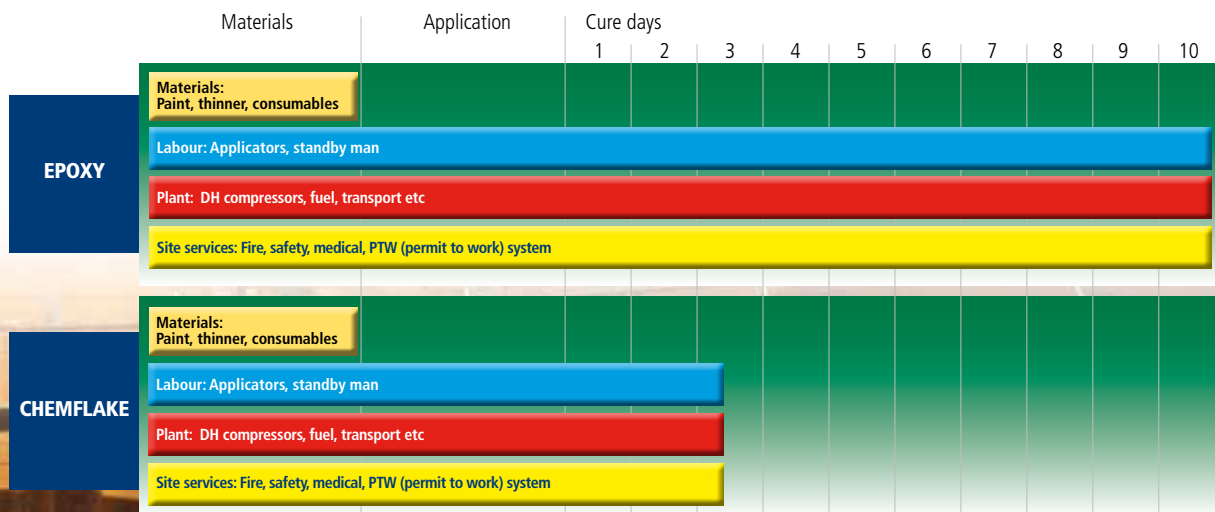
Versatile

- 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

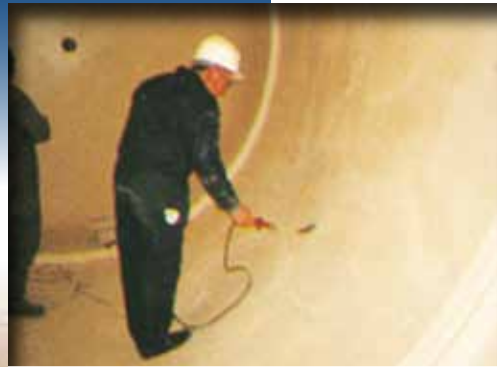
Solvent-less vinyl ester glass flake coating

- 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 ² /l	DFT µm/coat	Number of coats
Steel	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
Concrete	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

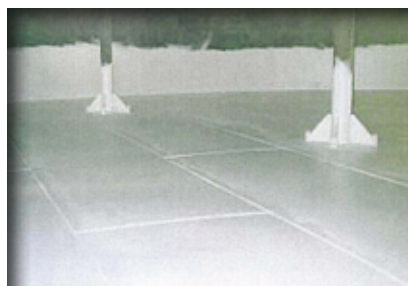
Studsrup Power Plant Denmark

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 m²
 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 m²
 System: 2 x 750 µm Chemflake Special
Total: 1500 µm DFT

Jotun worldwide

AUSTRALIA

Jotun Australia Pty. Ltd.,
P.O.Box 105, Altona North,
9 Cawley Road,
BROOKLYN, VIC 3025
Tel: +61 3 9314 0722
Fax: +61 3 9314 0423

AZERBAIJAN

Dubendi Firmasi
Badamdar Sossesi No 27
BAKU
Tel: +994 125 105 234
Fax: +994 125 101 169

BRAZIL

Jotun Brasil Ltda.
Av Santa Luzia, 2084 - Santa Luzia
24.722-315 São Gonçalo
RIO DE JANEIRO
Tel: +55 21 2776 1313
Fax: +55 21 2776 2263

P.R. of CHINA

Jotun Coatings (Zhangjiagang) Co. Ltd.
Jotun COSCO Marine Coatings Co. Ltd.
Floor 20, Jiu Shi Mansions,
No. 28 Zhong Shan Road (South)
SHANGHAI 200010
Tel: +86 21 6333 080 0
Fax: +86 21 6326 968 6

Jotun Coatings (Zhangjiagang) Co. Ltd.
Jotun COSCO Marine Coatings Co. Ltd.
Room 709-12, Goldlion Digital Network
Centre, 138 Tiyu Road East,
GUANGZHOU, 510620
Tel: +86 20 38 78 07 49
Fax: +86 20 38 78 19 66

HONG KONG

Jotun COSCO Marine Coatings (H.K.) Ltd
Room 1208, 12/F,
Stanhope House
734 King's Road, Quarry Bay
HONG KONG
Tel: +852 2527 6466
Fax: +852 2861 1307

CYPRUS

Jotun Paints (Europe) Ltd
P.O. Box 52177, 4061 LIMASSOL
visiting address:
Visionhire Bldg,
Corner: Manoli Kalomiri & Marikas Kotopouli,
3rd Floor, 3030 LIMASSOL
Tel: +357 253 744 55
Fax: +357 253 744 00

DENMARK

Jotun Danmark A/S Jotun Coatings
Columbusvej 5, 2860 Søborg,
COPENHAGEN
Tel: +45 4492 9400
Fax: +45 4492 9401

EGYPT

El Mohandes Jotun S.A.E.
El Sheikh Aly Gad El Haq Street
Florida Mall, Masaken Sheraton – 4th Floor
CAIRO
Tel: +20 2265 1800
Fax: +20 2265 1801

FINLAND

Nor-Maali OY
Vanhatie 20, 15240 LAHTI
Tel: +358 3 874 650
Fax: +358 3 874 6550

FRANCE

Jotun France S.A.
22/24 Rue du President Wilson, Bat.A
92300 LEVALLOIS PERRET
Tel: +33 1 4519 3882
Fax: +33 1 4519 3894

GERMANY

Jotun (Deutschland) GmbH
Winsberggring 25,
22525 HAMBURG
Tel: +49 40 851 960
Fax: +49 40 856 234

GREAT BRITAIN

Jotun Paints (Europe) Ltd.
Stather Road, Flixborough,
SCUNTHORPE DN15 8RR
Tel: +44 1724 400 000
Fax: +44 1724 400 100

GREECE

Jotun Hellas Ltd.
Skouze 26 Str.,
PIREAEUS 18536
Tel: +30 210 42 85 980-82
+30 210 42 86 035-37
Fax: +30 210 42 85 983

INDIA

Jotun India Pvt Ltd.
204 & 205 Ascot Centre
Sahar Road, Andheri (East)
MUMBAI 400 099
Tel: +91 22 2822 4600
+91 22 2820 5900 (+fax)
Fax: +91 22 2820 5900

INDONESIA

P.T. Jotun Indonesia Paints and Chemicals
Kawasan Industri MM2100
Blok KK-1, Cikarang Barat
Bekasi 17520
Tel: +62 21 8998 2657
Fax: +62 21 8998 2658

IRELAND

Jotun (Ireland) Ltd.,
Unit K7, Marina Commercial Park,
Centre Park Road, CORK
Tel: +353 214 965955
Fax: +353 214 965992

ITALY

Jotun Italia S.P.A.
Via Petronio, 8, Zona Ind. Noghere
34147 - MUGGIA (TRIESTE)
Tel: +39 040 23 98204
Fax: +39 040 23 98222

JAPAN

NKM Coatings Co., Ltd.
25-15 Higashi Ohi 5-chome
Shinagawa-ku, TOKYO 140-8520
Tel: +81 3 3472 3521
Fax: +81 3 3472 3481

KAZAKHSTAN

Jotun Boya San ve Tic. AS
Kazakhstan Repr. Office
EXPO-City, Pavillion 15, Office 106
Timiryazev Str. 42
ALMATY
Tel/Fax: +7 727 266 5557

KOREA (SOUTH)

Chokwang-Jotun Ltd.
30th Block Jisa Science Park,
1205 Jisa-dong, Gangseo-gu,
BUSAN 618-230
Tel: +82 517 976 000
Fax: +82 517 117 735

LATVIA

Jotun Paints (Europe) Ltd.
Representative Office,
Daugaygrivas 83/89
Office No.75, 1007 RIGA
Tel: +371 6747 3908/9
Fax: +371 6747 3907

LIBYA

Al Mumtaz Imp.of Paints & Equipm.Co.
P.O.Box 6850,
TRIPOLI
visiting address:
Ben Al Ahmer Str., Hai Al Andalous district
TRIPOLI
Tel: +218 214 777 811
Fax: +218 214 780 718

MALAYSIA

Jotun (Malaysia) Sdn. Bhd.
Lot 7 Persiaran Perusahaan,
Section 23, P.O. Box 7050
40700 SHAH ALAM
Tel: +60 351 235 500
Fax: +60 351 235 632

THE NETHERLANDS

Jotun B.V.
Postbus 208
3200 AE SPIJKENISSE
Visiting address:
Curieweg 11b, 3208 KJ Spijkenisse
ROTTERDAM
Tel: +31 181 678 300
Fax: +31 181 617 899

NORWAY

Jotun A/S
P.O.Box 2021,
3248 SANDEFJORD
Visiting address:
Hystadveien 167, 3209 Sandefjord
Tel: +47 33 45 70 00
Fax: +47 33 45 79 00

OMAN

Jotun Paints Co. LLC
Rusayl Ind. Estate, Road No.10
P.O. Box 672 Code 111, MUSCAT
Tel: +968 2444 6100
Fax: +968 2444 6105

PAKISTAN

Jotun Pakistan (Pvt.) Limited
Plot no. 2-H, Sector 5
Korangi Industrial Area, KARACHI
Tel: +92 213 5121 491-2
Fax: +92 213 5121 493

PHILIPPINES

Jotun Singapore Pte. Ltd –
Philippine Branch Office,
846 West Service Road, Km.18,
South Super Highway, Paranaque City
METRO MANILA 1714
Tel: mobile: +63 9088 8098 90
office: +63 2239 1032 to 34 /
+63 2776 1337 / +63 2776 1651 local 216
Fax: +63 2822 0760

POLAND

Jotun Polska Sp.z.o.
Ul. 10 Lutego 16, 81-364 GDYNIA
Tel: +48 58 555 1515
Fax: +48 58 781 9692

PORTUGAL

Jotun Iberica SA. (Suc. Portugal)
Estrada Vale ede Mulatas,
Armazem no. 5
2910-338 SETUBAL
Tel: +351 265 708 910
Fax: +351 265 708 563

QATAR

Jotun Qatar
10th Floor Al Wakra Tower
P.O. Box 24373,
Code-0974, DOHA
Tel: +974 441 2977
Fax: +974 441 2728

ROMANIA

Jotun Boya San.ve.Tic.A.S.
Representative Office Romania
Str, Nicolae Jorga Nr 113A
8700 CONSTANTA
Tel: +40 241 516987
Fax: +40 241 513863
Mobile: +40 722 230961

RUSSIA

Jotun Paints O.O.O.
Stachek Avenue 57, No.31
198096 ST. PETERSBURG
Tel: +7 81 2332 0080 / 2785 0034
Fax: +7 81 2783 0525

SAUDI ARABIA

Jotun Saudia Co. Ltd.
Jeddah Industrial City, Phase 3,
P.O.Box 34698, JEDDAH 21478
Tel: +966 2635 0535 / 2636 1271
Fax: +966 2636 2483

SINGAPORE

Jotun (Singapore) Pte. Ltd.
11&15 Sixth Lok Yang Road,
Jurong, SINGAPORE 628111
Tel: +65 650 882 88
Fax: +65 6265 7484

SOUTH AFRICA

Jotun Paints South Africa (PTY) Ltd.
Wimbledon Road,
P.O.Box 187
BLACKHEATH 7581
Tel: +27 21 905 1070
Fax: +27 21 905 1652

SPAIN

Jotun Iberica S.A.
Poligon Santa Rita,
Calle Estatica no. 3
08755 Castellbisbal, BARCELONA
Tel: +34 937 711 800
Fax: +34 937 711 801

SWEDEN

Jotun Sverige AB
P.O. Box 151, Klangfärgsgatan 13,
421 22 VÄSTRA FRÖLUNDA
Tel: +46 3169 6300
Fax: +46 3169 6397

SYRIA

Jotun Syria
Mr. Anas Tayarrah,
c/o Arabian Enterprises
P.O.Box 9130, DAMASCUS
Tel: +963 116 113 820
Fax: +963 116 115 951
Mobile: +963 942 300 23

THAILAND

Jotun Thailand Ltd
Amata Nakom Ind. Estate (BIPII)
700/353 Moo 6 Tumbol
Donhualoh, Amphur Muang
CHONBURI 2000
Tel: +66 38 214 824-6/214 347-51
Fax: +66 38 214 373/375

TURKEY

Jotun Boya San. ve Ticaret. A.S.
Yeni Camlik Caddesi,
Ayaz Sok. No. 2/4,
4. Levent, ISTANBUL 34418
Tel: +90 21 2279 7878
Fax: +90 21 2279 2549

U. A. E.

Abu Dhabi
Jotun Abu Dhabi (LLC)
P.O.Box 3714, Mussafah
ABU DHABI
Tel: +971 2551 0300
Fax: +971 2551 0232

Dubai

Jotun U.A.E. Ltd. (LLC)
P.O.Box 3671,
Al Quoz Industrial Area
DUBAI
Tel: +971 4339 5000
Fax: +971 4338 0666

USA

Jotun Paints, Inc.
9203 Highway 23,
P.O. Box 159,
Belle Chasse, LA 70037
Tel: +1 800 229 3538
+1 504 394 3538
Fax: +1 504 394 3726

VIETNAM

Jotun Paints (Vietnam) Co. Ltd.
Song Than Industrial. Zone,
No.1 Street 10,
Di An District,
Binh Duong Province
Tel: +84 65 074 2206-9
Fax: +84 65 074 2205

YEMEN

Jotun Yemen Paints Co. Ltd
P.O. Box 70183, Al Alam
ADEN
Tel: +967 2820 546-9
Fax: +967 2249 362

HEAD OFFICE

Jotun A/S
P.O.Box 2021, 3248 Sandefjord, Norway
Tel: +47 33 45 70 00 Fax: +47 33 45 79 00
www.jotun.com

