



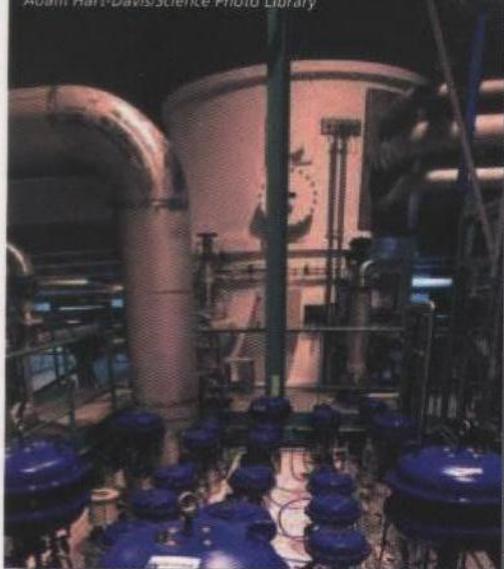
# JOTUN

## JOTATEMP 650

Surface Tolerant Coating for

- Corrosion Protection at Extreme Temperatures





### Corrosion Under Insulation (CUI)

Corrosion behind linings is a complex subject.

By logically considering each of the issues which can be a cause of CUI, the problems in most environments can be solved with coatings. It should be remembered that CUI is often more aggressive due to the lack of ventilation and a serious, unseen microclimate.

As energy costs and environmental waste energy awareness increase the use of insulation will increase. The hazards of CUI will become more relevant in areas not seen before but the rules will still apply – know your environment.

The main causes of CUI are:

- Moisture
- Chemical constituents in the moisture
- Chlorides in the insulating material
- Temperature gradient in the steel
- Cyclic temperature and condensation (precipitation) – leading also to salts accumulation
- Lifetime expectations / inspections
- Type of Insulation
- Difficult inspection

# JOTATEMP 650

## IDEAL FOR MAINTENANCE

- Surface tolerant
- Application up to 260°C during operating
- No special equipment required
- No special preparation required
- No shut down required when painting

Jotatemp 650 is a surface tolerant high build one component Inert Multipolymeric Matrix coating.

It is especially suited for preventing Corrosion Under Insulation during construction and shut down or low temperature periods. It provides corrosion protection of structures exposed to extreme high and/or extreme low temperatures.

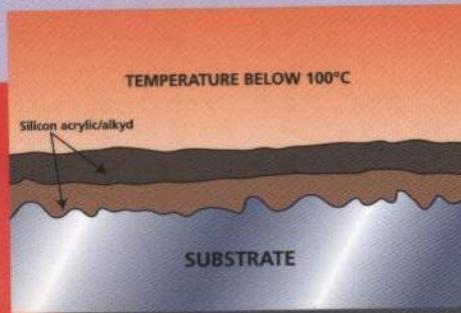
Being both surface tolerant and high build it can be used for high temperature application (hot substrates up to 260°C) meaning that maintenance can be carried out without needing to shut down the plant.

Jotatemp 650 provides corrosion protection of insulated and non-insulated carbon steel and stainless steel with dry operating surface temperatures. These can range from cryogenic to above 650°C (intermittent 720°C) and include cyclic services in temperatures between -185°C and 540°C.

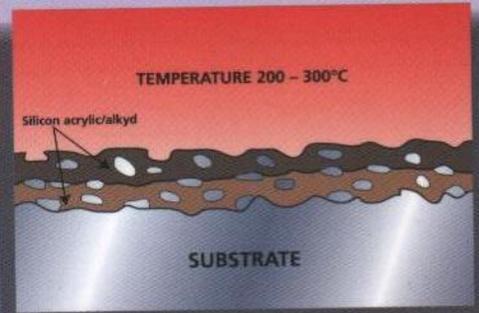
Jotatemp 650 does not contain any zinc and therefore does not have a shortened life span caused by the sacrificial effect.

## NO BREAKDOWN AT EXTREME TEMPERATURES

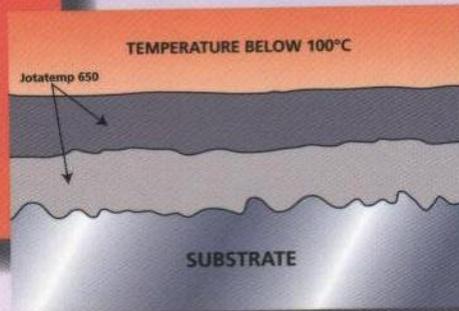
The organic elements in Jotatemp 650 do not breakdown at high heat as they do in silicon acrylics/alkyds where protection provided by the paint film is reduced – often referred to as the 'Swiss cheese effect'.



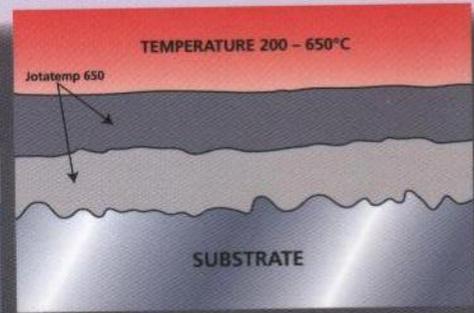
Typical silicon acrylic/alkyd coating using organic binders. Film thickness is low.



As temperature increases the organic binders begin to breakdown. At between 200–300°C the silicon binder leaves vacuoles similar to a Swiss cheese.



Jotatemp 650 is built of special inorganic binders that have organic modification thus providing excellent application and adhesion.

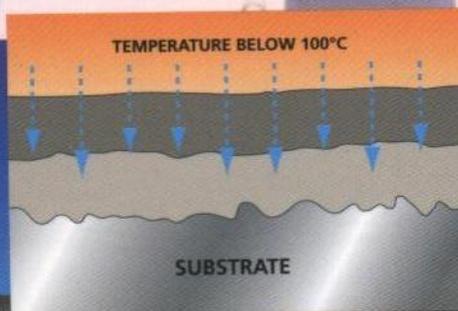


As temperature increases Jotatemp 650 provides a thick consistent barrier protecting the substrate over long periods.

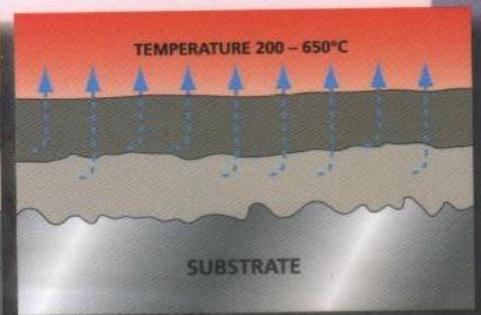


Insulation removed from a pipe originally coated with a zinc containing coating. Zinc has worked but by sacrificing, thus limiting the lifetime of the protection.

## BARRIER AGAINST CORROSION



Jotatemp 650 provides a barrier to moisture during periods when temperatures are below 100°C.



As temperature increases the moisture is drawn out of the system.

**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

**AZEBAIJAN**

Jotun Azerbaijan  
12/14 Pushkin Street, Apt. 63  
BAKU AZ0000  
Tel: +994 1298 5890  
Fax: +994 1298 6334

**BRAZIL**

Jotun Brasil Imp. Expe. Industria de Tintas Ltda.  
Estrada São Lourenço, no 751 Capivari,  
25243-150 Duque de Caxias - RJ  
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  
Tornrosevej 127  
2730 HERLEV  
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  
Winsbergweg 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.  
Prince Plaza 2nd Floor  
73, Pantheon Road, Egmore  
CHENNAI 600 008  
Tel: +91 44 2841 9420  
+91 2851 0861  
Fax: +91 44 2841 9513

**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  
Samal-1, Zholdasbekova Str. 32/20  
ALMATY  
Tel/Fax: +7 327 253 2447

**KOREA (SOUTH)**

Chokwang-Jotun Ltd.  
119-9, Bukjung-Dong,  
Yangsan City  
KYUNGNAM 626-110  
Tel: 82 553 856 600  
Fax: 82 553 867 742

**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**

Jotun Paints Libya  
P.O.Box 80683, TRIPOLI  
visiting address:  
Gargareh Road, Al Andalous district  
TRIPOLI  
Tel: +218 214 781 525  
+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.  
P.O. Box 208  
NL-3200 AE SPIJKENISSE  
Visiting address:  
Newtonweg 17A  
NL-3208 KD SPIJKENISSE  
Tel: +31 181 678 300  
Fax: +31 181 617 899

**NORWAY**

Jotun A/S  
P.O.Box 2021,  
3248 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

**PHILIPPINES**

Jotun Singapore Pte. Ltd -  
Philippines Branch Office,  
Unit 105/106, Don Jesus Blvd,  
Kentucky Drive, Alabang Hill,  
Muntinlupa City,  
METRO MANILA 1771  
Tel/Fax: +63 2 809 7497

**POLAND**

Jotun Polska Sp.zo.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  
Gulf Commercial Centre,  
Gulf Street,  
P.O. Box 24373,  
Code-0974, DOHA  
Tel: +974 412728  
Fax: +974 415608

**ROMANIA**

Representative Office,  
Jotun Paints Turkey  
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 6265 4711  
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, Klangfargsgatan 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 (BIP1)  
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 80660  
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