DNV·GL

Certificate No:
TAK000006B
File No:
335.22
Job Id:
262.1-021132-1

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Cargo Oil Tanks

with type designation(s)
Jotagard 100

Issued to
Jotun A/S
SANDEFJORD, Norway

is found to comply with
Det Norske Veritas' Type Approval Programme 1-602.4, 2011, Protective Coating Systems-Cargo Oil Tanks
IMO Resolution MSC.288(87) Performance Standard for Protective Coatings (PSPC)
IACS Unified Interpretations SC259. For Application of SOLAS Regulation II-1/3-11 Performance Standard for Protective Coatings for Cargo Oil Tanks of Crude Oil Tankers (PSPC-COT), adopted by Resolution MSC.288(87).

Application :

For use in cargo oil tanks of crude oil tankers. Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2019-12-10**.

Issued at **Høvik** on **2015-12-11**

for **DNV GL**

DNV GL local station: **Sandefjord**

Approval Engineer: **Gisle Hersvik**

Martin Strande
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.
If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million.
In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

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Product description

Jotaguard 100, 2-component epoxy based, solvent free, light coloured, coating for corrosion protection of steel surfaces.

Manufactured by

Jotun Paints (Europe) Ltd., Stather Road, Flixborough, Scunthorpe, North Lincolnshire, DN15 8RR, England, United Kingdom

DNV GL local office: Manchester

Responsibility

The Company (stated on the front page of this Certificate) takes the responsibility that both design and production are in compliance with Rules, Standards and/or Regulations listed on page 1 of this certificate.

Application/Limitation

This approval is solely connected to the corrosion prevention properties of the coating material. The approval does not include any evaluation of toxicity, contamination, pollution, or fire technical properties.

Jotaguard 100 is approved for application on blast cleaned surfaces and on shop primed surfaces. The following shop primers are prequalified:

MUKI Z 2001	[Jotun A/S]
Interplate 855	[International Paint Ltd.]

Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.

The durability of the applied coating system will depend on the steel surface preparation, coating application and the environmental conditions.

The Type Approval Certificate is invalid if the formulation of the epoxy coating **Jotaguard 100** is changed to a degree deemed significant by DNV GL. If the formulation of any of the listed pre-qualified shop primers is changed to a degree deemed significant by DNV GL that shop primer cannot be used as part of the Protective Coating System.

Type Approval documentation
Tests carried out

Type testing carried out in accordance with **Type Approval documentation**. The tests reported in the COT bv and DNV Technical Reports are carried out according to the procedures in IMO Resolution MSC.288(87) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC259;

- COT bv Test Report No. LAB15-0549-REP, Issue 01 "Crude Oil Test Jotaguard 100 + Jotaguard 100 on INTERPLATE 855" of 2015-10-09.
- DNV Technical Report No. 16UPIGL-3/2013-5371, Rev. 0, "Ballast tank coating test of Jotaguard 100 on Muki Z 2001 shop primer" of 2913-11-29.

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **Jotun Paints (Europe) Ltd., Flixborough, England**, *type designation*; **Jotaguard 100**, and *date of production/batch number*.

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV GL Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment to be performed after two (2) years (Certificate Retention) and at renewal after four (4) years (Certificate Renewal).

The main elements of the Periodical Assessment are to:

- Ensure that **Type Approval documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV GL Type Approval Certificate.

END OF CERTIFICATE