DNV·GL

Certificate No:
TAK00000EF

TYPE APPROVAL CERTIFICATE

This is to certify:

That the TBT-Free Anti-Fouling Systems

with type designation(s)
SeaForce 200 AV

Issued to
Jotun A/S
SANDEFJORD, Norway

is found to comply with
DNV GL class programme DNVGL-CP-0110 – Type approval – Anti-fouling systems

Application :

Organotin-free Anti-fouling system.

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

This Certificate is valid until **2021-08-08**.

Issued at **Høvik** on **2016-08-09**

for **DNV GL**

DNV GL local station: **Sandefjord**

Approval Engineer: **Stefan Marion**

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.

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Job Id: **262.1-023522-1**
Certificate No: **TAK00000EF**

Product description

Organo-tin free self polishing anti-fouling System; **SeaForce 200AV**

Colours:
The product is available in various colours. Please contact the local Jotun representative for details.

Active ingredients:
CAS No. 1317-39-1 Copper(1)oxide

Manufactured by

Jotun Paints Inc, P.O. Box 159; 9203 Highway 23; Belle Chasse, LA 70037; USA

DNV GL local office: New Orleans

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

The issuance of this certificate is solely connected to the control of the Anti-Fouling System, AFS, with regard to compliance with the International Convention on the Control of Harmful Anti-Fouling Systems on Ships.

It does not cover verification of surface preparation, corrosion protection, fire, health and safety precautions, durability of the AFS or environmental properties other than regulated by the Convention.

Type Approval documentation

1.
2.
3.
4.
5.

Tests carried out

Type Testing carried out according to **Type Approval documentation**, with the following test results, ref. Test Report KR-19054 from Molab AS as of 2014-07-01

SeaForce 200AV: 0,042 % (no TBT compunds detected)

Marking of product

Product shall be marked with manufacturer's name; **Jotun Paints Inc.**, type designation; **Jotun SeaForce 200AV** 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 2 years (Certificate Retention) and at renewal after 5 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.