Certificate No:
TAK000021K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the TBT-Free Anti-Fouling Systems

with type designation(s)
SeaQuantum Ultra S

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 :

Organo-tin free self-polishing hydrolysing type anti-fouling system.

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

Issued at **Høvik** on **2021-06-05**
This Certificate is valid until **2024-12-31**.
DNV local station: **Sandefjord**

Approval Engineer: **Gisle Hersvik**

for **DNV**

Gustav Heiberg
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

Organo-tin free self-polishing hydrolysing anti-fouling paint; **SeaQuantum Ultra S.**

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

Active ingredients:

Cuprous oxide	CAS No. 1317-39-1
Copper pyrithione	CAS No. 14915-37-8

Manufactured by

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

DNV local station: Manchester

Jotun Paints (M) Sdn Bhd, Lot 9143, PN 38500, Kawasan Perindustrian Nilai, 71800 Nilai, Negeri Sembilan, Malaysia

DNV local station: Kuala Lumpur

Jotun Coatings (Zhangjiagang) Co. Ltd., Jiangsu Yangtze river Internat, Chemical Industry Park, Zhangjiagang Free Trade Zone, Jiangsu 215634, P.R. China

DNV local station: Nanjing

Jotun COSCO Marine Coatings (Qingdao) Co., Ltd., South of Chunyang Road and East of Huaguan Road, Qingdao National High-tech Industrial Development Zone, Qingdao, P.R. China

DNV local station: Qingdao

Chokwang Jotun Ltd., 96, Gwahaksandan, 1-ro, Gangseo-gu, Busan, 46742, South Korea

DNV local station: Gimhae

Jotun Iberica S.A., Poligon Industrial, Santa Rita, Calle Estàtica, no 3, 08755 - Castellbisbal Barcelona, Spain

DNV local station: Barcelona

Jotun U.A.E Ltd. (L.L.C.), P.O.Box 3671, Al Quoz Industrial Area, Dubai, U.A.E.

DNV local station: Dubai

Jotun Boya San. Ve Ticaret A.S., Yeni Camlik Caddesi, Ayaz Sokat No:2 Kat:4, 34418 4, Levent-Istanbul, Turkey

DNV local station: Istanbul

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

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, with the following test result, ref. Test Reports from Molab as of 2012-03-19:

- **SeaQuantum Ultra S**: 0,049% (No TBT-compounds detected)

Marking of product

Product shall be marked with *manufacturer's name*, *place of production* and *type designation*.

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 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 assessments (for Certificate Retention and Certificate Renewal) shall be performed according to DNVGL-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnvgl.com

END OF CERTIFICATE