



Certificate No:
TAK000027D

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Anti-Fouling Systems

with type designation(s)
FASTAR I, FASTAR XI and A-LF-Sea 150

Issued to

NIPPON PAINT MARINE(Zhangjiagang) Co.,Ltd
Zhangjiagang, China

is found to comply with

DNV class programme DNV-CP-0110 – Type approval – Anti-fouling systems

Application :

Organotin-free and Cybutryne-free self-polishing anti-fouling systems

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

Issued at **Hamburg** on **2023-03-16**

This Certificate is valid until **2028-03-15**.

DNV local unit: **Jiangyin NB & CMC**

Approval Engineer: **Christine Löll**

for **DNV**

Thorsten Lohmann
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.



Form code: TA 251

Revision: 2022-12

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Product description

Organotin-free and Cybutryne-free self-polishing anti-fouling paints;

- **FASTAR I**
- **FASTAR XI**
- **A-LF-Sea 150**

Colours:

The products may be available in various colours. Please contact the local Nippon Paint Marine Co., Ltd., Representative for details.

Chemically active ingredients:

CAS No. 1317-39-1 Copper(1)oxide

CAS No. 14915-37-8 Copper pyrithione

Manufactured by

NIPPON PAINT MARINE (ZHANGJIAGANG) CO., LTD., No. 95 Hua Da Road, Jiangsu Yangtze River International Chemical Industrial Park, Zhangjiagang, Jiangsu, China

Local office: Jiangyin

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 product complies with the International Convention on the Control of Harmful Antifouling Systems on Ships as adopted by IMO October 2001 (IMO document AFS/CONF/26), amended June 2021.

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

Tests carried out

Type Testing carried out in accordance with Type Approval documentation, with the following test results:
ref. test report from Test and Verifying Institute Center for Ship Materials on Coatings and Paintings of 2022-08-26:

FASTAR I (red brown)	No TBT detected
FASTAR XI (dark brown)	No TBT detected
A-LF Sea 150 (light brown)	No TBT detected

Marking of product

Product/package shall be marked with *manufacturer's name*: **NIPPON PAINT MARINE (ZHANGJIAGANG) CO., LTD.** and *address, type designation 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 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 / Certificate Renewal) shall be performed according to DNV-CP-0338.



Job Id: **262.1-038703-1**
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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.dnv.com>.

END OF CERTIFICATE