Certificate No:
TAK000021A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the TBT-Free Anti-Fouling Systems

with type designation(s)
JC3901 tin-free self-polishing antifouling paint

Issued to
SUZHOU JIREN HIGH-TECH MATERIALS CO., LTD.
Suzhou, **China**

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

Application :

Organotin free self-polishing anti-fouling system.

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

Issued at **Hamburg** on **2021-05-06**
This Certificate is valid until **2026-05-05**.
DNV local station: **Shanghai**

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.

Product description

JC3901 tin-free self-polishing antifouling paint: a high solids tin-free composite self-polishing antifouling paint

Colour(s): red

Active ingredients:

No active ingredients

Manufactured by

Suzhou Jiren High-Tech Material Co,.Ltd., No. 18, Chunwang Road, Huangdai Town, Xiangcheng District, Suzhou 215143, China

Local station: Shanghai

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. report No. JX20393 from Test and Verifying Center for Ship Materials on Coatings and Paintings, Xiamen, P.R. of China dated 2020-09-23:

- **JC3901 tin free self-polishing antifouling paint:** 0,0140% tin (no TBT detected)

Marking of product

Product shall be marked with *manufacturer's name*; **Suzhou Jiren High-Tech Material Co,.Ltd** , *type designation*; **JC3901 tin free self-polishing antifouling paint 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 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