DNV·GL

Certificate No:
TAK00001NZ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the TBT-Free Anti-Fouling Systems

with type designation(s)
HilonCare 7300

Issued to
Shanghai Hilong Shine New Materials Co., Ltd.
1825 Luodong Rd., Shanghai, China

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

Application :

Organotin-free self-polishing copolymer anti-fouling system.

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

Issued at **Hamburg** on **2019-06-25**
This Certificate is valid until **2024-06-30**.
DNV GL local station: **Shanghai**

Approval Engineer: **Christine Löll**

for **DNV GL**

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.

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Job Id: **262.1-018978-8**
Certificate No: **TAK00001NZ**

Product description

Organotin-free self-polishing copolymer anti-fouling paint: **HilonCare 7300**

Colours:
The product may be available in various colours. Please contact the local Shanghai Hilong Shine New Material Co., Ltd. Representative for details.

Active ingredients:

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

Manufactured by

Shanghai Hilong Shine New Materials Co., Ltd., 1825 Luodong Rd., Shanghai, China

DNV GL 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.

Tests carried out

Type Testing carried out in accordance with DNV GL CP-0110, with the following test results, ref. Test Reports from Molab of 2015-05-07:

— **HilonCare 7300** (AF3001, Red): 0.03 % tin

Marking of product

Product shall be marked with *manufacturer's name*; **Shanghai Hilong Shine New Material Co., Ltd., China** and *type designation*; **HilonCare 7300**.

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 (Certificate Retention) and renewal after 5 years (Certificate Renewal) shall be performed acc. DNV GL CP-0338.

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END OF CERTIFICATE