

TYPE APPROVAL CERTIFICATE

This is to certify:**That the TBT-Free Anti-Fouling Systems**

with type designation(s)

SEAFLO NEO SL Z, SEAFLO NEO 500 Z

Issued to

**Chugoku Marine Paints, Ltd. (Hiroshima Head Office)
Otake, Hiroshima Pref., Japan**

is found to comply with

DNV GL class programme DNVGL-CP-0110 – Type approval – Anti-fouling systems**Application :****Organotin-free self-polishing type anti-fouling system.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-10-23**This Certificate is valid until **2024-10-22**.for **DNV GL**DNV GL local station: **Hiroshima**Approval Engineer: **Stefan Marion**

**Rikard Törnqvist
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.



Job Id: **262.1-019300-5**
Certificate No: **TAK00001TM**

Product description

Organotin-free self-polishing anti-fouling paints; **SEAFLO NEO SL Z and SEAFLO NEO 500 Z**

Active ingredients:

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

Colours:

The product may be available in various colours. Please contact the local Chugoku Marine Paints Ltd. representative for details.

Manufactured by

Chugoku Marine Paints Ltd. (Kyushu Factory), 2783 Tade, Yoshinogari-cho, Kanzaki-gun. Saga-ken, 842-0035, Japan

DNV GL local office: Hiroshima

Chugoku Paints (Malaysia) Sdn. Bhd., PLO 430, Jalan Emas Dua, Pasir Gudang Industrial Estate 81700, Pasir Gudang, Johor, Malaysia

DNV GL local office: Kuala Lumpur

Chugoku Marine Paints (Shanghai) Ltd., 4677, Jiasong Road (North), Jiading, Shanghai, 201814, China

DNV GL local office: Shanghai

Chugoku Marine Paints (Guangdong) Ltd., Industrial Development Area, Lunjiao, Shunde, Foshan, Guangdong, 528308, China

DNV GL local office: Guangzhou

Chugoku Paints B.V., Sluisweg 12, 4794 SW Heijningen, Netherlands

DNV GL local office: Rotterdam

Chugoku Samhwa Paints Ltd., 322 Gimhae-daero 927 beon-gil, Hallim-myeon, Gimhae-si, Gyeongsangnam-do, Republic of Korea (SEAFLO NEO SL Z only)

DNV GL local office: Gimhae

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.

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Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, with the following test results, ref. Test Reports from JPIA, Japan of 2014-04-30, 2014-08-07 and 2019-09-05;

- **SEAFLO NEO SL Z** (Light Brown): <0.0200 % tin
- **SEAFLO NEO 500 Z** (Red): <0.0200 % tin

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 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