DNV·GL

Certificate No:
TAK00000M8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the TBT-Free Anti-Fouling Systems

with type designation(s)
HEMPEL'S ANTIFOULING GLOBIC 9500 M

Issued to
Hempel A/S
Kgs. Lyngby, Denmark

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

Application :

Organotin free self-polishing hydrolysing anti-fouling system.

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

This Certificate is valid until **2021-12-19**.

Issued at **Høvik** on **2016-12-20**

for **DNV GL**

DNV GL local station: **Copenhagen**

Approval Engineer: **Gisle Hersvik**

Martin Strande
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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Product description

Organotin free self-polishing hydrolysing anti-fouling paint:
HEMPEL'S ANTIFOULING GLOBIC 9500 M

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

Active ingredients:

CAS No. 1317-39-1	Copper(1)oxide
CAS No. 12122-67-7	zinc ethylene- 1,2-bisdithiocarbamate (Zineb)
CAS No. 14915-37-8	Copper pyrithione
CAS No. 64359-81-5	4,5-dichloro-2-n-octyl-4-isothiazolin-3-one

Manufactured by

Hempel Paints (Poland) Sp. z o.o., Ul. Modrzewiowa 2, Niepruszewo, 64-320, Buk, Poland

DNV GL local office: Gdansk

Hempel (Croatia) d.o.o., 32 Novigradska Ulica, HR 52470 Umag, Croatia

DNV GL local office: Rijeka

Hempel Paints (Emirates) LLC - Sharjah Showroom/Office/Trade Counter, P.O. Box 2000, Sharjah, United Arab Emirates

DNV GL local office: Abu Dhabi

HEMPEL (Portugal) Lda, Vale de Catadores, 2954-002 Palmela, Portugal

DNV GL local office: Lisbon

HEMPEL Manufacturing (Malaysia) Sdn. Bhd., Batu 6, Jalan Batu Pahat, 86000 Kluang, Malaysia

DNV GL local office: Singapore

Hempel (Yantai) Coatings Ltd., No.12 Zhujiang Road, Economic & Tech Development Zone, Yantai 264006, Shangdong Province, The People's Republic of China.

DNV GL local office: Qingdao

Hempel (Kunshan) Coatings Ltd., No.1 Haihong Road, Zhangpu, Kunshan 215321 Jiangsu Province, The People's Republic of China.

DNV GL local office: Shanghai

Hempel (Guangzhou) Coatings Ltd., Canghai Road No.5, Yonghe Economic District, Guangzhou Economic & Technology Development District, Guangzhou, The People's Republic of China

DNV GL local office: Guangzhou

P.T. Hempel Indonesia, Jalan Raya Sultan Agung Km 27, Pondok Ungu, Bekasi 17132, Indonesia

DNV GL local office: Jakarta

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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 results (ref. Test Report from PRA, UK of 2015-04-27):

— **HEMPEL'S ANTIFOULING GLOBIC 9500 M 78954**: 0.0230 % tin

Marking of product

Product/package shall be marked with *manufacturer's name 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 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 to be performed after 2 and 3.5 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

The main elements of the Periodical Assessment are to:
- Ensure that **Type Approval documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and DNV GL Type Approval Certificate.

END OF CERTIFICATE