DNV·GL

Certificate No:
TAK00001SY

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Seawater Ballast Tanks

with type designation(s)
EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000,
EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000 QD

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

is found to comply with
DNV GL rules for classification – Ships
IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC)
IACS Unified Interpretations SC223. For Application of SOLAS Regulation II-1/3-2 Performance Standard for Protective Coatings (PSPC) for Dedicated Seawater Ballast Tanks in All Types of Ships and Double-side Skin Spaces of Bulk Carriers.

Application :

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

Issued at **Hamburg** on **2019-09-11**
This Certificate is valid until **2024-09-10**.
DNV GL local station: **Hiroshima**

for **DNV GL**

Approval Engineer: **Enno Brück**

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: **262.1-010955-9**
Certificate No: **TAK00001SY**

Product description

EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000 and **EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000 QD**; 2-component zinc epoxy anticorrosive primer, plus 2-component epoxy based, light coloured coating for corrosion protection of steel surfaces.

CMP NOVA 2000: M2-22031A (ref. TDS No. 6081, Rev. 001, 07/2019)
CMP NOVA 2000 QD: M2-22041A (ref. TDS No. 6081A, Rev. 001, 07/2019)

Manufactured by

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

DNV GL local office: Hiroshima.

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

This approval is solely connected to the corrosion prevention properties of the coating material. The approval does not include any evaluation of toxicity, contamination, pollution, or fire technical properties.

EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000 and **EPICON ZINC RICH PRIMER B-2 + CMP NOVA 2000 QD** are approved for application on blast cleaned surfaces and on prequalified shop primed surfaces. The following shop primers are prequalified:

- CERABOND 2000 [Chugoku Marine Paints]
- Cerazinc [Kobe Paints]
- Nippon Ceramo [Nippon Paint Marine Coatings]
- SD Zinc 1000 HA(S) [NKM Coatings Co., Ltd.]

The **EPICON ZINC RICH PRIMER B-2** is manufactured by:

- Chugoku Marine Paints Ltd., Kyushu Factory, Japan
- Kobe Paints, Ltd., Tsuchiyama Factory, Japan
- Chugoku Marine Paints Ltd., Shiga Factory, Japan

Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.

The durability of the applied coating system will depend on the steel surface preparation, coating application and the environmental conditions.

The Type Approval Certificate is invalid if the formulation of the epoxy coatings **EPICON ZINC RICH PRIMER B-2, CMP NOVA 2000** and **CMP NOVA 2000 QD** are changed to a degree deemed significant by DNV GL. If the formulation of any of the listed pre-qualified shop primers is changed to a degree deemed significant by DNV GL that shop primer cannot be used as part of the Protective Coating System.

Tests carried out

Type Testing carried out in accordance with DNV GL CP-0108. The tests are carried out according to the procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC 223;

- JPIA Technical Report No. 180750 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 on CERABOND 2000 Shop Primer" of 2019-07-10.
- JPIA Technical Report No. 180751 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 QD on CERABOND 2000 Shop Primer" of 2019-07-10.
- DNV Energy Report No. 2008-5375, Rev. 00"Ballast Tank Test of Nova 2000 on Cerazic shop primer".
- DNV Energy Report No. 2008-5377, Rev. 00"Ballast Tank Test of Nova 2000 QD on Cerazic shop primer".
- JPIA Technical Report No. 180754 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 on NIPPON CERAMO Shop Primer" of 2019-07-10.
- JPIA Technical Report No. 180755 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 QD on NIPPON CERAMO Shop Primer" of 2019-07-10.
- JPIA Technical Report No. 180758 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 on SD ZINC 1000HA(S) Shop Primer" of 2019-07-10.
- JPIA Technical Report No. 180759 "Ballast Tank Coating Test of EPICON ZINC RICH PRIMER B-2 and CMP NOVA 2000 QD on SD ZINC 1000HA(S) Shop Primer" of 2019-07-10.

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **Chugoku Marine Paints, Ltd., Kyushu Factory, Japan**, and *type designation*; **CMP NOVA 2000** or **CMP NOVA 2000 QD**, 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 (Certificate Retention) and renewal after 5 years (Certificate Renewal) shall be performed acc. DNV GL CP-0338.

END OF CERTIFICATE