DNV·GL

Certificate No:
TAK0000126

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Cargo Oil Tanks

with type designation(s)
EPICON T-500

Issued to
Chugoku Samhwa Paints, Ltd.
Gimhae-si Gyeongsangnam-do, Korea

is found to comply with
DNV GL class programme DNVGL-CP-0139 – Type approval – Protective coating systems for cargo oil tanks
IMO Resolution MSC.288(87) Performance Standard for Protective Coatings (PSPC)
IACS Unified Interpretations SC259. For Application of SOLAS Regulation II-1/3-11 Performance Standard for Protective Coatings for Cargo Oil Tanks of Crude Oil Tankers (PSPC-COT), adopted by Resolution MSC.288(87).

Application :

For use in cargo oil tanks of crude oil tankers. Surface preparation and coating application as per PSPC or manufacturer's recommendations, whichever is stricter.

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

Issued at **Høvik** on **2017-12-15**
This Certificate is valid until **2022-12-14**.
DNV GL local station: **Gimhae Station**

Approval Engineer: **Stefan Marion**

for **DNV GL**

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

EPICON T-500, two-component, epoxy based coating for corrosion protection of steel surfaces.

Manufactured by

Chugoku Samhwa Paints Ltd., 322, Gimhae-daero 927 beon-gil, Halim-myeon, Gimhae-si, Gyeongsangnam-do, Korea

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

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 T-500 is approved for application on blast cleaned surfaces and on prequalified shop primed surfaces. The following shop primers have been prequalified:

CERABOND 2000	[Chugoku Samhwa Paints, LTD.]
SIGMAWELD 165	[PPG Protective & Marine Coatings]
GALVANY SHOPPRIMER IZ182(J)	[KCC Corporation]
GALVANY SHOPPRIMER IZ182(S)	[KCC Corporation]
Interplate 8010	[International Paint]

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 coating **EPICON T-500** is 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.

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**. The tests reported in the JPIA report are carried out in accordance with the procedures in IMO Resolution MSC.288(87) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC 259;

- JPIA Technical Report No. 121164, "Cargo Oil Tank Coating Test of 2x160µm EPICON T-500 on CERABOND 2000 Shop Primer" of 2012-10-29.
- JPIA Technical Report No. 133052, "Cargo Oil Tank Coating Test of 2x160µm EPICON T-500 on SIGMAWELD 165 Shop Primer - Crossover Test" of 2014-02-25.
- JPIA Technical Report No. 133054, "Cargo Oil Tank Coating Test of 2x160µm EPICON T-500 on GALVANY SHOP PRIMER IZ 182(J) Shop Primer - Crossover Test" of 2014-02-25.
- JPIA Technical Report No 150023, "Cargo Oil Tank Coating Test of 2x160µm EPICON T-500 on GALVANY SHOP PRIMER IZ 182(S) – Crossover Test" of 2015-05-15

— JPIA Technical Report No. 162262, "Cargo Oil Tank Coating Test of 2x160µm EPICON T-500 on INERPLATE 8010 Shop Primer – Crossover Test" of 2017-10-10

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **Chugoku Samhwa Paints Ltd., Gyeongnam, Korea,** *type designation*; **EPICON T-500**, 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 the DNV Type Approval Certificate.

END OF CERTIFICATE