DNV·GL

Certificate No:
TAK00001TS

TYPE EXAMINATION CERTIFICATE

This is to certify:

That the Protective Coating Systems - Offshore Structures

with type designation(s)
Rainboprime 973 (1x150 µm) / Rainboprime 962 (1x150 µm) / Rainbothane 751 (1x50 µm)

Issued to
Yung Chi Paint & Varnish Mfg. Co. Ltd.
Kaohsiung, Taiwan

is found to comply with
NORSOK Standard M-501 Surface preparation and protective coating, Edition 6, February 2012

Application :

The coating system has been tested to Coating System No. 1 requirements in accordance with the stated Standard.

The coating system is not specified in accordance with the stated Standard. The use of the tested coating system to be evaluated in each individual case.

Issued at **Høvik** on **2019-11-04**
This Certificate is valid until **2024-11-03**.
DNV GL local station: **Kaohsiung**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

Gustav Heiberg
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 Examination Certificate and not to the approval of equipment/systems installed.

Product description

Rainboprime 973 (1x150 µm) / Rainboprime 962 (1x150 µm) / Rainbothane 751 (1x50 µm)

Description of the Coating system, tested on bare steel;
- *No zinc rich primer specified/used*
- **Rainboprime 973** A two-pack anticorrosion primer based on epoxy resin
- **Rainboprime 962** A two-pack anticorrosion primer based on epoxy resin
- **Rainbothane 751** A two-pack aliphatic acrylic polyurethane finish

The tested coating system is not defined, and therefore not, in accordance with NORSOK M-501.

The testing has been performed with basis in test requirements of NORSOK M-501 (for Coating system no. 1, for protection of Carbon steel with maximum operating temperature <120°C for Structural steel and Exteriors of equipment, vessels, piping and valves (not insulated)), however, does not indicate that the coating system is accepted as an alternative of the system specified in NORSOK M-501. The use of the tested coating system to be evaluated in each individual case between contractual partners.

Coating system no. 1 is defined in NORSOK M-501, Surface preparation and protective coating, Rev. 6, February 2012, as having a zinc rich primer (DFT min. 60 µm), a minimum of 3 coats and a total DFT of min. 280 µm.

For details on Coating system no. 1, please refer to NORSOK M-501, Rev. 6, February 2012.

Application/Limitation

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

This Type Approval certificate is not valid for designs, components, equipment, systems or products which are subject to classification by DNV GL.

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, ref.: Test and Verifying Center for Ship Materials on Coatings and Paintings Technical Report No. JX19223 "YCP-3: Rainboprime 973(1x150 µm)+Rainboprime 962(1x150 µm)+Rainbothane 751(1x50 µm)" of 2019-09-02.

Marking of product

Products forming parts of the coating system shall be marked with *manufacturer's name*; **Yung Chi Paint & Varnish Mfg. Co. Ltd., Taiwan** and *type designations*.

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.

Job Id: **262.1-032099-1**
Certificate No: **TAK00001TS**

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