Certificate no.:
TAK00002GW

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Protective Coating Systems

with type designation(s)
PROMASTIC STE-87 (60 µm) + PROMASTIC HB (200 µm) + PROGUARD PU70 (70 µm)

issued to
PROTECH Coatings & Construction Chemicals
Alexandria, **Egypt**

is found to comply with
DNV class programme DNV-CP-0293 – Type approval – Abrasion resistant coatings

Application:

For use where abrasion resistance is needed.

Issued at **Hamburg** on **2025-04-09**
This Certificate is valid until **2030-04-08**.
DNV local unit: **Egypt**

for **DNV**

Approval Engineer: **Gisle Hersvik**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

PROMASTIC STE-87 (60 µm) + PROMASTIC HB (200 µm) + PROGUARD PU70 (70 µm)

Description of the Protective Coating System, tested on bare steel:
- **PROMASTIC STE-87** Polyamide cured epoxy paint
- **PROMASTIC HB** Polyamide cured epoxy paint
- **PROGUARD PU70** Polyurethane gloss topcoat

Application/Limitation

For use where abrasion resistance is needed.

The tested protective coating system is not defined in Section 7.2 Table 3 of ISO 12944-9:2018, but it is tested in accordance with the requirements in ISO 12944-9:2018 Table 4, environment of corrosivity category CX and in accordance with ASTM D4060, abrasion resistance.
The protective coating system is not tested for cathodic delamination.
The protective coating system is specified by PROTECH.

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.

The use of the protective coating system will not justify reduction of the increment for abrasion and corrosion (ref. DNV-RU-SHIP Pt.6 Ch.6).

The use and suitability of the protective coating system to be evaluated on project specific basis.

Type Approval documentation

Tests carried out

Type Testing carried out according to **Type Approval documentation**, ref. Test Reports from Egyptian Petroleum Research Institute (EPRI):
- No. PR 002-2 [ISO 12944-9, Cyclic ageing test (4200 hrs)] of 2025-02-02 and
- No. PR 004 [ASTM D4060, Abrasion resistance, CS-17, 1000 cycles] of 2024-08-26.

Marking of product

Products forming parts of the coating system shall be marked with *manufacturer's name*: **PROTECH Coatings & Construction Chemicals, Egypt**, *type designations* 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 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 / Certificate Renewal) shall be performed according to DNV-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.dnv.com

END OF CERTIFICATE