Certificate No:
TAK000023F

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Seawater Ballast Tanks

with type designation(s)
Intergard 403

Issued to
International Paint Limited
Gateshead, Tyne and Wear, **United Kingdom**

is found to comply with
DNV class programme DNV-CP-0108 – Type approval – Protective coating systems for seawater ballast tanks and double-side skin spaces
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.

Issued at **Hamburg** on **2021-12-22**
This Certificate is valid until **2027-03-12**.
DNV local station: **Newcastle-upon-Tyne**

Approval Engineer: **Enno Brück**

for **DNV**

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.

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

Intergard 403, 2-component epoxy based, light coloured coating for corrosion protection of steel surfaces.

Manufactured by

Akzo Nobel Coatings Vietnam Limited, Lot 107, Amata Street, Amata Industrial Zone Bien Hoa City Dong Nai Province, S.R. Vietnam

DNV local office: Ho Chi Minh City

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.

Intergard 403 is approved for application on blast cleaned surfaces and on prequalified shop primed surfaces. The following shop primers have been prequalified:

- Interplate Zero [International Paint]
- Interplate 997 [International Paint]
- Interplate 937 [International Paint]
- Interplate 855 [International Paint]
- Interplate 805 [International Paint]
- Interplate 317 [International Paint]
- Muki Z 2001 [Jotun A/S]
- Hempel's Shopprimer ZS 15890 [Hempel A/S]
- W53-02 [Taicang Lanyan Paint Co.]
- SigmaWeld 165 (Sigma Proferral MC) [PPG / Sigma Coatings]
- SigmaWeld 190 [PPG / Sigma Coatings]
- SigmaWeld 199 [PPG / Sigma Coatings]
- SD Zinc 1000 HA (S) [NOF Kansai Marine Coatings]
- Cerabond 2000 [Chugoku Marine Paints]

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 **Intergard 403** is changed to a degree deemed significant by DNV. If the formulation of any of the listed pre-qualified shop primers is changed to a degree deemed significant by DNV that shop primer cannot be used as part of the Protective Coating System.

Tests carried out

Type Testing carried out in accordance with DNV CP-108. The are carried out according to the procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC223;

- Bodycote Report No. N800 424, Issue 5, "Ballast Tank Coating Test Intergard® 403 Epoxy Paint over Interplate 317® Zinc Silicate Shop Primer" of 2009-04-28.
- DNV Energy Report No. 2008-5505, Rev. 00, "Crossover test of Intergard 403 on Interplate 805" of 2009-02-12.
- DNV Energy Report No. 2008-5508, Rev. 00, "Crossover test of Intergard 403 on Sigmaweld 190" of 2009-02-12.
- DNV Energy Report No. 2008-5510, Rev. 00, "Crossover test of Intergard 403 on Hempel's Shopprimer ZS 15890" of 2009-02-12.
- DNV Energy Report No. 2008-5512, Rev. 00, "Crossover test of Intergard 403 on Muki Z 2001" of 2009-01-28.
- DNV Energy Report No. 2008-5513, Rev. 00, "Crossover test of Intergard 403 on W53-02 shop primer" of 2009-02-12.

- DNV Energy Report No. 2008-5539, Rev. 00, “Crossover test of Intergard 403 on Interplate 855“ of 2009-02-13.
- DNV Energy Report No. 2008-5540, Rev. 00, “Crossover test of Intergard 403 on Interplate 855“ of 2009-02-13.
- DNV Energy Report No. 2008-5541, Rev. 00, “Crossover test of Intergard 403 on Interplate 997“ of 2009-02-13.
- DNV Energy Report No. 2008-5542, Rev. 00, “Crossover test of Intergard 403 on Interplate Zero“ of 2009-02- 3.
- DNV Energy Report No. 2008-5543, Rev. 00, “Crossover test of Intergard 403 on Kansai SD1000HA (S)“ of 2009-02-13.
- STS Test Report No. 7207/D5078/H/2 of 2009-08-24 (Intergard 403 over Interplate 937).
- STS Test Report No. 7207/D5078/H/3 of 2009-08-24 (Intergard 403 over Sigmaweld 199).
- EXOVA Report No. N951564 (D5078/G/107), Issue No. 2, “Ballast Tank Coating Test of 2 * 160 µm Intergard 403 on Sigmaweld 165” of 2011-01-10.
- EXOVA Report No. N951565 (D5078/G/108), Issue No. 3, “Ballast Tank Coating Test of 2 * 160 µm Intergard 403 on Cerabond 2000” of 2011-01-11.

Marking of product

Product/package shall be marked with *manufacturer’s name and address*; **Akzo Nobel Coatings Vietnam Limited, Vietnam** and *type designation*; **Intergard 403**, 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 Assessment (Certificate Retention) and renewal after 5 years (Certificate Renewal) shall be performed acc. DNV CP-0338.

END OF CERTIFICATE