DNV·GL

Certificate No:
TAK000010D

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Seawater Ballast Tanks

with type designation(s)
Intergard 5000

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

is found to comply with
DNV GL class programme DNVGL-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 :

For use in ballast tanks, double-skin spaces, cofferdams and similar areas. 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 **2018-02-15**
This Certificate is valid until **2023-02-14**.
DNV GL local station: **Newcastle-upon-Tyne**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

Rikard Törnqvist
Head of Section

Product description

Intergard 5000, 2-component epoxy based, light coloured coating with high volume solids, for corrosion protection of steel surfaces.

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 5000 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 937	[International Paint]
Interplate 855	[International Paint]
Interplate 805	[International Paint]
SigmaWeld 190	[PPG / Sigma Coatings]
SigmaWeld 199	[PPG / Sigma Coatings]
Muki Z 2001	[Jotun A/S]
Hempel's Shopprimer ZS 15890	[Hempel A/S]
Carboweld 11P	[Carboline]

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 5000** 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 Marintek test is accepted as alternative to the test procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC223:

- DNV Technical Report No. 2008-5132, Rev. 00, "Testing and Classification of Coatings Intergard 5000 KBA501/505 and Intergard 5000 KBA502/505 on Blast Cleaned Surface" of 2008-08-22.

Type Testing carried out in accordance with **Type Approval documentation**. The tests reported in the DNV, Bodycote and EXOVA Reports are carried out according to the procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC223;

- DNV Technical Report No. 2009-5190/1285H5B-5, Rev. 00, "Crossover test of Intergard 5000 on Interplate 805" of 2009-06-10.
- DNV Technical Report No. 2009-5191/1285H5B-6, Rev. 00, "Crossover test of Intergard 5000 on Interplate 937" of 2009-06-10.
- DNV Technical Report No. 2009-5192/1285H5B-7, Rev. 00, "Crossover test of Intergard 5000 on Sigmaweld 190" of 2009-06-10.
- DNV Technical Report No. 2009-5193/1285H5B-8, Rev. 00, "Crossover test of Intergard 5000 on Sigmaweld 199" of 2009-06-10.

- DNV Technical Report No. 2009-5194/1285H5B-9, Rev. 00, "Crossover test of Intergard 5000 on Hempel's Shopprimer ZS 15890" of 2009-06-10.
- DNV Technical Report No. 2009-5195/1285H5B-10, Rev. 00, "Crossover test of Intergard 5000 on Muki Z 2001" of 2009-06-10.
- DNV Technical Report No. 2009-5206/1285H5B-11, Rev. 00, "Crossover test of Intergard 5000 on Interplate Zero" of 2009-06-10.
- DNV Technical Report No. 2009-5208/1285H5B-13, Rev. 00, "Crossover test of Intergard 5000 on Interplate 855" of 2009-06-10.
- Bodycote Report No. N807 372, Issue 2, "Ballast Tank Coating Test Intergard 5000 over Carboweld 11P Zinc Silicate Shop Primer" of 2009-01-05.
- EXOVA Document Reference No. N951805 - D5754/D/22-29, Issue No. 2, "Ballast Tank Coating Test of Intergard 5000 Epoxy Paint on Interplate Zero Shop Primer" of 2011-01-10.

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **International Paint Limited**, **United Kingdom**, and *type designation*; **Intergard 5000**, 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 DNV GL Type Approval Certificate.

END OF CERTIFICATE