DNV·GL

Certificate No:
TAK00001CV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Protective Coating Systems - Cargo Oil Tanks

with type designation(s)
Intergard 7600

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

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 **Hamburg** on **2018-10-10**
This Certificate is valid until **2023-12-31**.
DNV GL local station: **Shanghai**

for **DNV GL**

Approval Engineer: **Enno Brück**

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.

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Product description

Intergard 7600, 2-component epoxy based, light coloured, coating for corrosion protection of steel surfaces.

Manufactured by

International Paint of Shanghai Co Ltd., 1515 Xin JinQiao Road, JinQiao Export & Processing Zone, Pudong, Shanghai, 201206 China

DNV GL local station: Shanghai

Responsibility

The holder of 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 7600 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 317	[International Paint]
SigmaWeld 199	[PPG / Sigma Coatings]
Cerabond 2000	[Chukogu Marine Paints]
Hempel's Shopprimer ZS 15890	[Hempel A/S]
W53-02	[Taicang Lanyan Paint Co.]
SD Zinc 1000HA(S)	[NOF Kansai Marine Coatings]
Muki Z 2001	[Jotun A/S]
TH-2	[Jiangsu Yejian Anticorrosion Materials Co., Ltd.]
F-6001	[Jiang Xi Jing Cheng Industrial Co., Ltd.]
WS-01	[Jingjian Hengyu Chemcail Machinery Co., Ltd.]
E(06)704	[Changzhou Tian-an Special Coating Materials Co., Ltd.]
SD Zinc Primer 1000HA(S)	[COSCO Kansai Paint & Chemical (Tianjin) Co., Ltd.]
CD-SG906	[Haidun Coating (Ningbo) Co., Ltd.]
E06-2	[Jiangsu Lanling Polymer Material Co., Ltd]

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 7600** 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.

Tests carried out

Type Testing carried out in accordance with DNV GL CP-0139. The tests reported in the STS, EXOVA, CCS-DNV Technology Institute Reports and Test and Verifying Center for Ship Materials on Coatings and Paintings Reports are carried out in accordance with the procedures in IMO Resolution MSC.288(87)

Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC259;

- EXOVA Report No. N956094 (D6508/A/11-15), Issue 01, "Cargo Oil Tank Coating test of 2 * 160 µm of Intergard 7600 Epoxy Paint on Interplate 937 Shop Primer" of 2012-01-23.
- EXOVA Report No. N950741, Issue 01, "Ballast Tank Coating Test of 2 x 160 µm Intergard 7600 on Interplate 317" of 2010-03-17.
- EXOVA Report No. D5078/G/2-9, Issue 01, "Ballast Tank Coating Test of 2 * 160 µm Intergard 7600 Epoxy Paint on Interplate 937 Shop Primer" of 2010-04-10.
- EXOVA Report No. N950740, Issue 2, "Ballast Tank Coating Test of 2 * 160 µm Intergard7600 on Interplate Zero" of 2010-03-26.
- STS Test Report No. 7207/D5078/H/16 of 2009-08-24 (Intergard 7600 over Lanyan W53-02).
- STS Test Report No. 7207/D5078/H/17 of 2009-08-24 (Intergard 7600 over SD Zinc 1000HA(S)).
- STS Test Report No. 7207/D5078/H/18 of 2009-08-24 (Intergard 7600 over Sigmaweld 199).
- STS Test Report No. 7207/D5078/H/19 of 2009-08-24 (Intergard 7600 over Cerabond 2000).
- STS Test Report No. 7207/D5078/H/21 of 2009-08-24 (Intergard 7600 over Hempel ZS15890).
- EXOVA Report No. N951701 (D5754/D/14), Issue No. 1, "Ballast Tank Coating Test of 2 * 160 µm Intergard 7600 on Interplate Zero" of 2010-06-22.
- EXOVA Report No. N951839 (D5078/G/136), Issue No. 2, "Ballast Tank Coating Test of 2 * 160 µm Intergard 7600 on Muki Z 2001" of 2011-01-11.
- CCS-DNV Technology Institute Technical Report No. CDTI-CL-11B018, "Ballast Tank Coating Test of 2 * 160 µm Epoxy-based Intergard 7600 (KUA760/764 and KUA763/764) on TH-2 Inorganic Zinc Shop Primer" of 2011-02-18.
- CCS-DNV Technology Institute Technical Report No. CDTI-CL-11B064, "Ballast Tank Coating Test of 2 * 160 µm Epoxy-based Intergard 7600 (KUA760/764 and KUA763/764) on F-6001 Inorganic Zinc Shop Primer" of 2011-06-16.
- CCS-DNV Technology Institute Technical Report No. CDTI-CL-11B068, "Ballast Tank Coating Test of 2 * 160 µm Epoxy-based Intergard 7600 (KUA760/764 and KUA763/764) on WS-01 Inorganic Zinc Shop Primer" of 2011-06-08.
- Test and Verifying Center for Ship Materials on Coatings and Paintings Test Report No. JX11255 "Intergard 7600 (2 * 160 µm) on E06(704) inorganic zinc silicate shop primer" of 2011-08-10.
- CCS-DNV Technology Institute Technical Report No. CDTI-CL-12B024, "Ballast Tank Coating Test of 2 * 160 µm Epoxy-based Intergard 7600 (KUA760/764 and KUA763/764) on SD Zinc Primer 1000HA(S) Zinc Shop Primer" of 2012-03-09.
- Test and Verifying Center for Ship Materials on Coatings and Paintings Technical Report No. JX13399, "Intergard 7600 (2 * 160 µm) on CD-SG906 inorganic zinc silicate shop primer" of 2013-11-20.
- CCS-DNV Technology Institute Technical Report No. CDTI-CL-12B062, "Ballast Tank Coating Test of 2*160µM Epoxy-based Intergard 7600 (KUA760/764 and KUA763/764) on E06-2 Inorganic Zinc Shop Primer" of 202-08-20.

Marking of product

Product/package shall be marked with *manufacturer's name and address*; **International Paint of Shanghai Co., Ltd., China**, *type designation*; **Intergard 7600**, 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).

END OF CERTIFICATE