

Certificate No: **TAKOOOOGA**

TYPE APPROVAL CERTIFICATE

This is to certify:	
That the Protective Coating Systems - Seawater B	allast Tanks
with type designation(s) Transpoxy Barrier 218	
Issued to Transocean Coatings B.V. Rotterdam, Netherlands	
is found to comply with DNV GL class programme DNVGL-CP-0108 – Type seawater ballast tanks and double-side skin space IMO Resolution MSC.215(82) Performance Standa IACS Unified Interpretations SC223. For Application Performance Standard for Protective Coatings (PS All Types of Ships and Double-side Skin Spaces of	es and for Protective Coatings (PSPC) on of SOLAS Regulation II-1/3-2 GPC) for Dedicated Seawater Ballast Tanks in
Application :	
For use in ballast tanks, double-skin spaces, coffe preparation and coating application as per PSPC owhichever is stricter.	
Product(s) approved by this certificate is/are accept DNV GL.	epted for installation on all vessels classed
This Certificate is valid until 2021-09-29 .	
Issued at Høvik on 2016-09-30	
DNV GL local station: Rotterdam, Product Certification / Verification	for DNV GL
Approval Engineer: Stefan Marion	Martin Strande

Head of Section

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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.

Job Id: **262.1-021684-1** Certificate No: **TAK00000GA**

Product description

Transpoxy Barrier 218; high solids epoxy coating

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.

Transpoxy Barrier 218 is approved for application on blast cleaned surfaces and on shop primed surfaces. The following shop primers are prequalified:

Transoweld Primer [Transocean Coatings B.V.]
SigmaWeld 199 [PPG/Sigma Coatings]

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 **Transpoxy Barrier 218** are changed to a degree deemed significant by DNV GL. If the formulation of any of the listed prequalified 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

- 1. Previous Type Approval Certificate GL KORR 1242 HH2
- 2. Application for Type Approval of 2016-09-23
- 3. Type Approval Assessment Report from DNV GL Rotterdam of 2016-03-29
- 4. Email from DNV GL Rotterdam of 2016-03-31 including TDS, MSDS, Test Reports

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**. The tests carried out at Germanischer Lloyd Prüflabor GmbH, Germany and COT bv, Netherlands are in accordance with procedures in IMO Resolution MSC.215(82) Performance Standard for Protective Coatings (PSPC), ref. IACS UI SC 223;

- Test Report from GL, Report No. 912132HH of 2010-02-02
- Test Report from COT bv, Report No. LAB11-0958-REP of 2011-11-28

Marking of product

Product/package shall be marked with manufacturer's name and address; **Transocean Coatings B.V., Netherlands**, type designation; **Transpoxy Barrier 218**, 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.

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Periodical Assessment to be performed after two (2) years (Certificate Retention) and at renewal after five (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 the DNV GL Type Approval Certificate.

END OF CERTIFICATE

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