



CERTIFICATE NUMBER 18-LD1811660-PDA

EFFECTIVE DATE 16 Jan 2019

EXPIRATION DATE 15 Jan 2024

ABS TECHNICAL OFFICE London Engineering Department

CERTIFICATE OF

## Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**CHEMCO INTERNATIONAL**

located at

**COATBRIDGE, SCOTLAND**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product** IMO PSPC Approved Seawater Ballast Tank Coating

**Model** RS 500P/RA 500M on Bare Steel, Blast Cleaned Steel Surfaces and Rusted/wet steel surfaces

This Product Design Assessment (PDA) Certificate remains valid until 15 Jan 2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping



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Nitin Tyagi, Senior Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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**Product:** IMO PSPC Approved Seawater Ballast Tank Coating  
**Model:** RS 500P/RA 500M ON BARE STEEL, BLAST CLEANED STEEL SURFACES AND RUSTED/WET STEEL SURFACE.

**Intended Service:**

A coating which may be used as protective coatings for dedicated seawater ballast tanks, double-side skin spaces of bulk carriers and can be applied directly to mechanically prepared bare steel or on a compatible shop primer.

**Description:**

This coating system has been identified by infrared scanning, by determination of specific gravity, and by determination of volatile/non-volatile content.

This coating has also been assessed against the criteria for alternative systems for the following applications:-

- Bare rusted steel
- Wet bare rusted steel

Coating components:-

- Epoxy resin RA 500M part A
- Epoxy Resin RS 500P part A
- Cycloaliphatic amine HF 500M part B
- Formulated polyamine adduct HR 500P part B

**Rating:**

Compliance of the subject coating with the IMO PSPC MSC. 215(82) requirements has been verified by review of test reports listed on this PDA and 'RS 500P/RA 500M ON BARE STEEL, BLAST CLEANED STEEL SURFACES AND RUSTED/WET STEEL SURFACE' is considered to have passed the requirements of IMO PSPC MSC.215(82) Performance Standards for Protective Coatings for Dedicated Seawater Ballast Tanks in all Types of Ships and Double-Side Skin Spaces of Bulk Carriers.

**Service Restriction:**

1. For protective coatings in dedicated seawater ballast tanks of all types of ships of not less than 500 gross tonnage and double-side skin spaces arranged in bulk carriers of 150m in length and upwards which are constructed of steel, as defined in MSC 215(82).
2. The manufacturer must have a certified quality management system and be under the appropriate ABS Type Approval category, Recognized Quality System (RQS) and be audited annually.
3. Quality Assurance and Quality Control process and procedures are to be in place which demonstrate the consistency of each successive batch, records of testing are to be made available at audits when required. Employees responsible for Quality testing are to be independent of personnel involved in production.
4. The manufacturer is responsible for identifying all containers in the batch with some form of permanent marking.
5. If the manufacturer wants to subcontract the process, the secondary company is to be given a duplicate PDA and is required to do a Type Test and maintain a valid Manufacturing Assessment certificate.
6. This Product Design Assessment will become invalid if the formulation of either the epoxy based system or the shop primer is changed. It is the responsibility of the manufacturer to inform ABS immediately of any changes to the formulation.
7. Unit Certification is not required for this product. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
8. For applications requiring coating system approval in accordance with IMO PSPC MSC.215(82), use on suitable prepared bare steel.
9. The approved product is solely related to the corrosion protection properties of the subject coating system as per the IMO PSPC MSC.215(82), and it is not relevant to the evaluation of the toxicity, flammability and polluting properties of the product.
10. The scope of Type Approval is to comply with MSC.1/Circ. 1221 Dated 11th December 2006.
11. Provided the required surface preparation can be achieved (i.e. profile between 30-75 micro meter) any blasting

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method may be employed.

**Comments:**

1. This assessment was not conducted on behalf of any Administration.
2. Subject coating system 'RS 500P/RA 500M ON BARE STEEL, BLAST CLEANED STEEL SURFACES AND RUSTED/WET STEEL SURFACE' strictly to be applied in accordance with the IMO PSPC requirements and/or the requirements provided by the applicable Manufacturer's Data-sheet, whichever is stricter. Special care is to be taken during application at low temperatures to ensure that ice crystals do not form on the steel surface to be coated.
3. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
4. The manufacturer can download the Confirmation of Type Approval from the ABS website at [www.eagle.org](http://www.eagle.org) which would be considered equivalent to a Type Approval Certificate or Statement of Compliance as mentioned in MSC 215(82).
5. Product is to be supplied with Product Datasheet, Safety datasheet and Application Guidelines document.

**Notes/Drawing/Documentation:**

Exova report number N953421 dated 25/02/2011 - RS 500P and RA500M on bare steel,  
Exova report number N953422 dated 28/02/2011 - RS 500P and RA500M on bare rusted steel,  
Exova report number N953423 dated 19/11/2013 - RS 500P and RA500M on bare rusted wet steel,  
SAFETY DATA SHEET HF 500M (Part B) dated 16/03/2017  
SAFETY DATA SHEET HR 500P (Part B) dated 16/03/2017  
SAFETY DATA SHEET RA 500M (Part A) dated 16/03/2017  
SAFETY DATA SHEET RS 500P (Part A) dated 16/03/2017  
Product Datasheet - RA 500M dated June 2018  
Product Datasheet - RS 500P dated June 2018

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate 18-LD1811660-PDA, dated 16/Jan/2019 remains valid until 15/Jan/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

**STANDARDS**

**ABS Rules:**

2019 ABS Rules for Condition of Classification: 1-1-4/7.7, 1-1-A3, 1-1-A4  
2013 Guide for the Class Notation Coating Performance Standard (CPS), Chapter 5

**National:**

NA

**International:**

SOLAS (Consolidated Edition 2014) II-1/3-2 amended by IMO Resolution MSC.216(82) adopted by IMO Resolution

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MSC.215(82)

**Government:**  
NA

**EUMED:**  
NA

**OTHERS:**  
NA