



CERTIFICATE NUMBER 18-SG1743305-PDA

EFFECTIVE DATE 01-June-2018

EXPIRATION DATE 31-May-2023

ABS TECHNICAL OFFICE Singapore Engineering Service

## CERTIFICATE OF

# Product Design Assessment

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

**SEALXPRT PRODUCTS PTE. LTD.**

located at

**60 KAKI BUKIT PLACE, #09-11, EUNOS TECHPARK,  
SINGAPORE - 415979**

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 Synthetic Repair and Coating Products for use on Rigid Substrates**

**Model SealXpert™ PS102 Steel Repair Putty**

This Product Design Assessment (PDA) Certificate remains valid until 31-May-2023 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

Vibin Chandrabose, Engineer/Consultant

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)

**SEALXPRT PRODUCTS PTE LTD**

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**Tier: 2 - PDA Issued**

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**Product:** Synthetic Repair and Coating Products for use on Rigid Substrates**Model:** SealXpert™ PS102 Steel Repair Putty**Intended Service:**

Repairing and abrasion rebuilding for steel and iron casting parts, rolling parts, machining parts.

**Description:**

SealXpert™ PS102 Steel Repair Putty is a two component, ambient-temperature curing epoxy putty.

**1. Component A (Resin)**

Appearance: Grey paste

Basic material: Modified Epoxy Resin

Specific gravity (g/cm<sup>3</sup>): 2.10 2.0 – 2.3**2. Component B (Hardener)**

Appearance: Light yellow paste

Basic material: Epoxy modified amine

Specific gravity (g/cm<sup>3</sup>): 1.05 1.0 – 1.10**Rating:**

Properties of Cured Materials

Specific gravity: 2.1 g/cm<sup>3</sup>

Hardness: 83 Shore D

Shear strength: 103 kg/cm<sup>2</sup>

Compressive strength: 100 MPa

Tensile strength: 47 MPa

Tensile modulus: 6779 MPa

Working temperature: -50 – 160°C

Min. curing time at room temperature

50% loading 8 hours

100% loading 24 hours

**Service Restriction:**

1. 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.
2. The product is not to be used where flame spread or fire endurance performance is required.
3. Personnel involved in the installation of the repair system are to be trained and qualified/ endorsed by manufacturer

**Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. For applications on ABS Classed Vessels the following applies:
  - a. An engineering design assessment may be carried out for each application. The repair is to be designed, qualified, installed, tested and inspected by the manufacturer.
  - b. A risk assessment associated with both defect and the repair method may be completed prior to application.
  - c. ABS Survey is to be contacted prior to commencing preparations for resin application in order to assess the suitability for the specific repair. Surveyor to attend application planning meeting for specific project, together with manufacturer application team. Surveyor to attend upon completion of surface cleaning as specified and immediately prior to application of repair putty.
  - d. The repair is considered temporary and inspection intervals are to be agreed with ABS. If the area of interest has shown accelerated wastage, the bandage may only be acceptable for temporary use, pending the next available repair period. The condition and extent of damage are to be recorded.

**Notes/Drawing/Documentation:**

Drawing No. 1, MSDS - SEALXPRT PS102 STEEL REPAIR PUTTY, Revision: 6, Pages: 3



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Drawing No. 2, Product catalogue-Epoxy putties and coatings - PS102, Revision: 2, Pages: 1

Drawing No. 3, TDS -PS102 STEEL REPAIR PUTTY, Revision: 3, Pages: 1

TUV SUD Test Report No. 7191184055-MEC18-TYW dated 19 Apr 2018 (Physical Property Test), Revision: 0, Pages: 5

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate 18-SG1743305-PDA, dated 01/Jun/2018 remains valid until 31/May/2023 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:**

ABS Rules for Conditions of Classification (2018) 1-1-4/7.7, 1-1-A3 and 1-1-A4;

ABS Rules for Conditions of Classification – Offshore Units and Structures (2018) 1-1-4/9.7, 1-1-A2 and 1-1-A3;

ABS Rules for Conditions of Classification – High Speed Craft (2018) 1-1-4/11.9, 1-1-A2 and 1-1-A3

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

Manufacturer's Standard