

CERTIFICATE NUMBER 18-HS1747607-PDA DATE 19 Jul 2018

ABS TECHNICAL OFFICE Houston Materials

CERTIFICATE OF

Design Assessment

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

ITW PERFORMANCE POLYMERS

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 Compounds & Resins

Model: Plastic Steel® Putty (A) (Stock #: 10110, 10120, 10130)

Plastic Steel® Liquid (B) (Stock #: 10210, 10220, 10230)

Plastic Steel® 5-Minute® Putty (SF) (Stock #: 10240)

This Product Design Assessment (PDA) Certificate 18-HS1747607-PDA, dated 19/Jul/2018 remains valid until 18/Jul/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.

AMERICAN BUREAU OF SHIPPING

Tim Kimble

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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

ITW PERFORMANCE POLYMERS

30 ENDICOTT ST. DANVERS MA

United States 01923 Telephone: 978-646-5627

Fax: N/A

Email: ssubramania@devcon.com

Web: www.itwperformancepolymers.com

Tier: 3 - Type Approved, unit certification not required

Product: Synthetic Repair Compounds & Resins

Model: Plastic Steel® Putty (A) (Stock #: 10110, 10120, 10130)

Plastic Steel® Liquid (B) (Stock #: 10210, 10220, 10230) Plastic Steel® 5-Minute® Putty (SF) (Stock #: 10240)

Intended Service:

Patching, Sealing, Coating, Rebuilding, and Resurfacing worn areas. Also for use as a Protective Coating on new equipment.

Description:

Plastic Steel® Putty (A) is a steel-filled epoxy putty that cures at room temperature. Plastic Steel® Liquid (B) is a steel-filled liquid epoxy that cures at room temperature.

Plastic Steel® 5-Minute® Putty (SF) is a steel-filled, fast-setting epoxy putty that cures at room temperature.

Please also see the attached "pdf" Technical Data Sheets.

Rating:

Plastic Steel® Putty (A)

Adhesive Tensile Shear: 2,800 psi Compressive Strength: 8,260 psi

Cure Hardness: 85D Flexural Strength: 5,600 psi

Plastic Steel® Liquid (B)

Adhesive Tensile Shear: 2,800 psi Compressive Strength: 10,200 psi

Cure Hardness: 85D Flexural Strength: 7,480 psi

Plastic Steel® 5-Minute® Putty (SF) Adhesive Tensile Shear: 2,026 psi Compressive Strength: 10,400 psi

Cure Hardness: 85D Flexural Strength: 7,680 psi

Please also see the attached "pdf" Technical Data Sheets.

Service Restriction:

- Unit Certification is not required for this product.
- If repair involves any pressure-containing or structural component, or if repairs are extensive, the ABS Surveyor is to be contacted prior to starting preparation in order to obtain the Surveyor's acceptance for the specific application.
- 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.

Comments:

- The manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- This coating has been type approved as complying with the identified Standards.
- Proper application in accordance with the Manufacturer's Iinstruction is needed, which should reflect the application of the test cases used to determine compliance.
- ABS expressly disclaims all warranties with respect to the coating and the design assessment, including warranties of merchantability and fitness for a particular purpose. Successful coating is dependent on coating properties (some of which may not have been addressed in the approval standard), proper application (including surface prep, application, curing environment, etc.) and proper maintenance. These aspects are beyond the scope of this type approval.

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Notes/Drawing/Documentation:

Drawing No. 14-HS183296B-2-PDA 3-28-2018 PDA-Application-signed (002), PDA Application - Revalidation, Revision: -, Pages: -

Drawing No. 20180308144338198, Declaration of Conformity (A)10110 thru (SF)10240, Revision: -, Pages: -

Drawing No. Plastic Steel Putty (A) 4-14-18, Technical Data Sheet Revision: -, Pages: 2 Drawing No. Plastic Steel Liquid (B) 4-14-18, Technical Data Sheet, Revision: -, Pages: 2

Drawing No. Plastic Steel 5-Minute Putty (SF) 4-14-18 Technical Data Sheet, Revision: -, Pages: 2 Drawing No. ITW Performance Polymers Test Report MTL2857 ABS Certification of Multiple Metal Filled Epoxies

dated 10 Jul 17. Revision: -, Pages: 1

Terms of Validity:

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STANDARDS

ABS Rules:

ABS Rules for Conditions of Classification, Part 1, 2018; Steel Vessel Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4.

National:

ASTM C177 (2013)

ASTM D149 (2013)

ASTM D150 (2018)

ASTM D638 (2014)

ASTM D695 (2015)

ASTM D696 (2016)

ASTM D790 (2017)

ASTM D1002 (2010)

ASTM D2240 (2015)

International:

NA

Government:

EUMED:

NA

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OTHERS:

As of 19/Jul/2018

NA