

CERTIFICATE NUMBER 19-HS1875097-PDA DATE 11 Jul 2019

ABS TECHNICAL OFFICE Houston Materials

CERTIFICATE OF

DESIGN ASSESSMENT

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

W.L. GORE & ASSOCIATES INC.

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: Sheet Gasketing Model: GORE™ GR Sheet Gasketing

This Product Design Assessment (PDA) Certificate 19-HS1875097-PDA, dated 11/Jul/2019 remains valid until 10/Jul/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.

AMERICAN BUREAU OF SHIPPING Dustin De Los Santos

Dustin De Los Santos 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).

W.L. GORE & ASSOCIATES INC. 201 AIRPORT ROAD EIKTON MD United States 21921 Telephone: 410-392-3200 Fax: 410-506-7677 Email: Sealants@wlgore.com Web: www.gore.com

Tier: 2 - PDA Issued

Product:Sheet GasketingModel:GORE™ GR Sheet GasketingIntended Service:

Marine & Offshore Applications - Flange Gaskets, Equipment Gaskets, etc., in Process Piping for all Chemicals except Molten Alkali Metals and Elemental Fluorine. Applications include Steam, Chemical, Fresh Water, Salt Water, Air, Hydraulic Oil, Fuel Oil & Lube Oil Services.

Description:

GORE (TM) GR expanded PTFE Sheet Gasketing. Standard Thickness: 1mm (1/32"), 1.6mm (1/16"), 3.2 mm (1/8"), 6.4 mm (1/4"). Sheets may be cut by hand or die-cut.

Rating:

Temperature Range: -450°F to +600°F (-268°C to +315°C); Operating Pressure: Vacuum to 3000 psig (210 bar); Chemically Inert to all Media in the Range of pH 0-14, except Molten Alkali Metals and Elemental Fluorine;

Service Restriction:

- Unit Certification is not required for this product.

- Not to be used where materials rendered ineffective by heat.

Comments:

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. - If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Notes/Drawing/Documentation:

Drawing No. Federal Institute for Materials Research and Testing (Germany) Test Report No. 16020388/E dated 27 September 2016, Revision: -, Pages: 8

Drawing No. TÜV SÜD Industrie Service GmbH Certificate No. 17 03 9045 006 dated 31 March 17, Revision: -, Pages: 2

Drawing No. Gore GR Sheet Gasketing datasheet (SEAL-237-R2-DSH-EN-DEC17), Revision: -, Pages: 2 Drawing No. Safety information for Gore Gasketing (SEAL-180-R1-TEC-US-OCT15), Revision: -, Pages: 1

Previous review: Supporting Documentation: Certificate of No Change; Brochure - Gore GR Sheet Gasketing, Gasketing for Steel Pipes & Equipment, 2 pages;

Terms of Validity:

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STANDARDS

ABS Rules:

2019 Marine Vessel Rules 1-1-4/7.7, 1-1-A3 and A4 2019 Steel Vessels Under 90 Meters in Length Rules 1-1-4/7.7, 1-1-A3 and A4 2019 Offshore Support Vessels Rules 1-1-4/7.7, 1-1-A3 and A4; 2019 Steel Barges Rules -1-4/7.7, 1-1-A3 and A4 2019 Steel Vessels for Service on Rivers and Intracoastal Waterways Rules -1-4/7.7, 1-1-A3 and A4 2017 (Updated March 2018) Bulk Carriers for Service on the Great Lakes Rules 1-1-4/7.7, 1-1-A3 and A4 2019 High-Speed Craft Rules 1-1-4/11.9, 1-1-A2 and A3 2019 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2 and A3 2019 Mobile Offshore Units Rules 1-1-4/9.7, 1-1-A2 and A3 2018 Offshore Installations Rules 1-1-4/9.7, 1-1-A2 and A3

National:

NA

International:

DIN EN 1797: 2002 ISO 21010: 2017 VDI 2200, June 2007

Government: NA

EUMED: NA

OTHERS:

NA