



CERTIFICATE NUMBER	20-2026035-PDA
EFFECTIVE DATE	26-Aug-2020
EXPIRY DATE	25-Aug-2025
ABS TECHNICAL OFFICE	Houston ESD - Piping

## CERTIFICATE OF Product Design Assessment

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

### **GARLOCK SEALING TECHNOLOGIES**

located at

**1666 DIVISION STREET, PALMYRA, NY, United States, 14522**

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 Gasket**

**Model 5500 & 9900**

This Product Design Assessment (PDA) Certificate remains valid until 25/Aug/2025 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

Yongjin Lee, 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)

## **GARLOCK SEALING TECHNOLOGIES**

1666 DIVISION STREET

PALMYRA NY

United States 14522

Telephone: 1-800-448-6688

Fax: 1-800-543-0598

Email: gasketapps@garlock.com

Web: www.garlock.com

**Tier: 3 - Type Approved, unit certification not required**

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**Product:** Gasket

**Model:** 5500 & 9900

**Intended Service:**

Marine & Offshore Applications - For Saturated Steam, Water, Oil, Gasoline, Aliphatic Hydrocarbons, Inert Gases and Most Refrigerants.

**Description:**

Gasket 5500 - manufactured with Inorganic Fibers with Nitrile Binder

Gasket 9900 - manufactured with Graphite Fibers with Nitrile Binder.

**Rating:**

Garlock 5500 :

Temperature Maximum: 800 °F (+427 °C); ;

Temperature Continues Maximum: + 550 °F (+288 °C);

Temperature Minimum: -100 °F (-73 °C);;

Pressure Maximum: 1200 psig (83 bar);

PxT Rating (psig x °F) or (bar x °C ): 400,000 (14,000) for 1/16", 275,000 (9,600) for 1/8";

Garlock 9900:

Temperature Maximum: +1000°F (+537 °C);

Temperature Continues Maximum: + 650 °F (+343 °C);

Temperature Minimum: -100 °F (-73 °C);

Pressure Maximum: 2000 psig (138 bar);

PxT Rating (psig x °F) or (bar x °C ): 700,000 (25,000) for 1/16", 350,000 (12,000) for 1/8";

For Specification details see attached "pdf"

**Service Restriction:**

1) Unit Certification is not required for 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.

2) Gaskets 5500 & 9900 are acceptable where "Fire Safe" requirements are specified by ABS Rules requirements.

**Comments:**

1) Duplicates resides with Garlock de Mexico SA de CV - Mexico

2) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes/Drawing/Documentation:**

Declaration of Conformity 5500 & 9900 Dated 18 May 2020 (New York)

Declaration of Conformity 5500 & 9900 Dated 26 May 2020 (Mexico)

**Terms of Validity:**

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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.

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### **STANDARDS**

#### **ABS Rules:**

The Rules for Conditions of Classification, Part 1 2020 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2020 Rules for Building and Classing Marine Vessels, 4-6-1/3.5, 4-6-2/9.5 vi), 4-7-3/1.11.1

The Rules for Conditions of Classification, Part 1 2020 Offshore Units and Structures, 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2020 Rules for Building and Classing Mobile Offshore Units, 4-2-1/3.5

#### **National:**

NA

#### **International:**

ASTM F152-95 (2017) Standard Test Methods for Tension Testing of Nonmetallic Gasket Materials.

#### **Government:**

NA

#### **EUMED:**

NA

#### **OTHERS:**

NA