



## *Confirmation of Product Type Approval*

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 10/FEB/2019. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 03/AUG/2020 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**Product Name:** Gasket  
**Model Name(s):** 5500 & 9900

**Presented to:**  
GARLOCK SEALING TECHNOLOGIES  
1666 DIVISION STREET  
United States

<b>Intended Service:</b>	Marine & Offshore Applications - For Saturated Steam, Water, Oil, Gasoline, Aliphatic Hydrocarbons, Inert Gases and Most Refrigerants.
<b>Description:</b>	Gasket 5500 - manufactured with Inorganic Fibers with Nitrile Binder; Gasket 9900 - manufactured with Graphite Fibers with Nitrile Binder.
<b>Tier:</b>	3
<b>Ratings:</b>	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"
<b>Service Restrictions:</b>	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. i) Gaskets 5500 & 9900 are acceptable where "Fire Safe" requirements are specified by ABS Rules requirements.
<b>Comments:</b>	Duplicates resides with Garlock de Mexico SA de CV - Mexico The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this

product.

**Notes / Documentation:**

Garlock 9900 Datasheet Garlock 5500 Datasheet Kerosene Fire Safe Valve Test No. FT-0057 Gaskets Tested Style 9900 (X-3427) dated 7/15/91. Kerosene Fire Safe Valve Test No. FT-0058 Gaskets Tested Style 9900 (X-3427) dated 7/16/91. Garlock Fire Test No. FT-0184 ISO 10497 Gaskets Tested Style IFG 5500 dated 4/25/97. Garlock Fire Test No. FT-0185 ISO 10497 Gaskets Tested Style IFG 5500 dated 4/28/97. Technical Manual VIA-6/10-F Engineering Gasketing Products.

**Term of Validity:**

This Product Design Assessment (PDA) Certificate 15-VC1401249-PDA, dated 04/Aug/2015 remains valid until 03/Aug/2020 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.

**ABS Rules:**

The Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: 2015 Rules for Building and Classing Steel 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 2014 – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following: 2015 Rules for Building and Classing Mobile Offshore Drilling Units 4-2-1/3.5

**National Standards:**

**International Standards:**

ASTM F104-93 (1993) Standard Classification System for Nonmetallic Gasket Materials; ASTM F152-95 Standard Test Methods for Tension Testing of Nonmetallic Gasket Materials.

**Government Authority:**

**EUMED:**

**Others:**

**Model Certificate**

**Model Certificate No**

**Issue Date**

**Expiry Date**

PDA

15-VC1401249-PDA

06/AUG/2015

03/AUG/2020



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.