

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 22-2298732-PDA 30-Aug-2022 29-Aug-2027 Rotterdam Materials Eng

CERTIFICATE OF Product Design Assessment

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

WEICON GMBH & CO. KG

located at

KOENIGSBERGER STRASSE 255, , DE - 48157 MUENSTER,

Germany

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 & Resin
Model:	WEICON HB 300 Epoxy Resin
Endorsements:	
Tier:	2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 29/Aug/2027 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

Nikolaos (Nikos Vrellos) Vrellos, 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)

Electronically published by ABS London. Reference T1987566, dated 28-MAY-2020.

> WEICON GMBH & CO. KG KOENIGSBERGER STRASSE 255 DE - 48157 MUENSTER Germany Telephone: +49 251 9322 0 Fax: +49 251 9322 257 Email: info@weicon.de Web: www.weicon.com Tier: 2 - PDA Issued

Product:Synthetic Repair Compounds & ResinsModel:WEICON HB 300 Epoxy ResinEndorsements:

Intended Service:

Marine, Offshore and Industrial Application - Repair and bonding of cast and metal parts, for filling in blow holes, for repairing damage on containers, carriages, and machine parts and for sealing pumps and pipes.

Description:

Two part epoxy resin system with steel filler and high-temperature resistant, used for the repair of machinery parts due to tear and wear, corrosion, etc.

Rating:

Mixing ratio by weight %, Resin: Hardener - 100:100

Physical Properties Compressive strength > 90 N/mm2 Tensile Modulus 6600-7600 N/mm2 Hardness > 80 Shore D

Service Temperature -35 °C to 200 °C degrees Celsius, after curing at room temperature, at 21 °C, for 48 h.

Service Restriction:

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.

Repairs on piping are not to be commenced without prior consultation and agreement with the ABS Survey.

Comments:

Prior to each repair, a reconditioning plan is to be prepared and discussed with the attending ABS Surveyor. The repair plan is to include as minimum the material to be removed from the affected machinery part, the cleaning and inspection methodology, the thickness of the epoxy resin applied, any curing taken place, etc. When required, calculations showing that the manufacturer's specified minimum allowable strength and corresponding thickness/ diameter are maintained, are to also be carried out.

The reconditioning and repair procedures, especially for critical equipment, are to be in accordance with the equipment Manufacturer's recommendations.

The repairs are to be carried out by qualified personnel in accordance with WEICON's established and recommended procedure. Upon completion of the repair the correct alignment and balancing of the machinery is to be verified.

The use of these products is not permitted on any pressure part in containing a toxic or flammable liquid or gas.

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

Notes/Drawing/Documentation:

Drawing No. Correspondence, Request for PDA Drawing No. Correspondence, Client Response Drawing No. EN_GB_GA_10450010_WEICON_HB_300, Application Instructions Drawing No. Epoxy Resin (Plastic Steel) Questionaire, Datasheet Electronically published by ABS London. Reference T1987566, dated 28-MAY-2020.

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Drawing No. ISO 9001 and Certification, QA and Accreditation Drawing No. Material Application, Application Examples Drawing No. Material Specs and Testing, Material Specification Drawing No. Client Confirmation PDA, Variables Confirmed Drawing No. Material Specs Confirmation, Material Properties Drawing No. Client Confirmation, Acceptance to PDA Content

Terms of Validity:

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STANDARDS

ABS Rules:

2022 Rules for Conditions of Classification - Ships 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following: Rules for Building and Classing Marine Vessel Rules: Part 4-1-1/3.3 Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways: Part 4-1-1/3.3 Guide for Building and Classing Yachts: Part 4-1-1/3.3

2022 Rules for Conditions of Classification - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3

National: NA

International: NA

Government: NA

EUMED: NA

OTHERS: Manufacturer's Standards