



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

22-2298636-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

WENCON

located at

15 JYLLANDSVEJ, , BOGENSE, Denmark, DK-5400

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: See Attachment
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)

WENCON

15 JYLLANDSVEJ

BOGENSE

Denmark DK-5400

Telephone: 45-648-11010

Fax:

Email: wencon@wencon.com

Web: www.wencon.com

Tier: 2 - PDA Issued

Product: Synthetic Repair Compounds & Resins

Model: See Attachment

Endorsements:

Intended Service:

- 1) Repair of and/or protection against deterioration of metals in pumps, valves, filters, pipes, heating coils, tanks, bulk heads, coolers, rudder stocks, propeller shafts, etc.;
- 2) For creating fixture and preventing future corrosion in the seats for rudder stock bushings, rudder heel bushings, rudder cone assemblies, rudder pintle bushings, rudder pintle cones, stern tubes, and the like.

Description:

Wencon Repair and Protection System

Rating:

See attachment

Service Restriction:

Unit Certification is not required for this product. 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.

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

Comments:

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

- 1) Repair procedures including surface preparation and application are to be carried out in accordance with the manufacturer's specifications and procedures and as per Wencon Manual "Repair of deteriorated machine parts" (latest edition available at www.wencon.com).
- 2) Replacing metal that is essential for the structural strength of the item the Surveyor is to be contacted prior to commencing repair, in order to obtain the Surveyor's acceptance for the specific application.
- 3) Repairs to pressure containing systems the Surveyor is to be contacted prior to commencing repair, in order to obtain the Surveyor's acceptance for the specific application.
- 4) The Repair System may be applied to both metallic and plastic/ composite pressure containment systems.
- 5) The following limitations apply to the repair of pressure containing systems using Wencon Pipe Tape:
 - a) Maximum temperature 120 Deg C.
 - b) Maximum pressure when used with Wencon Putty 50bar.
 - c) Maximum pressure when used without Wencon Putty 10bar.
 - d) The use of these products is not permitted on any pressure part in containing a toxic or flammable liquid or gas.

Notes/Drawing/Documentation:

Drawing No. Declaration of Conformity - Wencon, PDA Declaration

Drawing No. Online Submission to ABS, ABS Application Form

Drawing No. Wencon ISO 9001 certification, QA Certificate

Drawing No. abs-certificate-wencon, Current Certificate

Drawing No. user-manual-2021-Wencon, Product and Installation Manual, Revision: 1.1

Drawing No. Client Confirmation, PDA Variables Confirmed

Terms of Validity:

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).

WENCON

15 JYLLANDSVEJ

BOGENSE

Denmark DK-5400

Telephone: 45-648-11010

Fax:

Email: wencon@wencon.com

Web: www.wencon.com

Tier: 2 - PDA Issued

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.

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

WENCON (021923)

PDA no.: 22-2298636-PDA

Model: As per below

Issuance Date: 08-Sep-2022

Expiration Date: 07-Sep-2027

Model Name

Product Name	Product Type	Ratings
Wencon Cream	Two part Epoxy based compound	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 250°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.
Wencon Rapid	Two part Epoxy based compound	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 250°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.
Wencon Coating	Two part Epoxy based compound	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 250°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and a range of solvents.
Wencon HiTemp	Two part Epoxy based compound	Temperature Resistance Corrosion: 160°C, Light load: 220°C, As filler: 300°C Chemical Resistance The compound is resistant to oil, water, saltwater and a wide range acids and alkalis as well as a range of solvents.
Wencon Putty	Two part Epoxy based compound	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 250°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.
Wencon UW Cream	Two part Epoxy based compound (for wet surfaces or under water)	Temperature resistance Corrosion and heavy load: 60°C, Light load or no load: 100°C, As filler: 160°C Chemical resistance After curing, the Wencon UW Cream will be resistant to oil, water, saltwater, most diluted acids and a range of solvents.
Wencon UW Coating	Two part Epoxy based compound (for wet surfaces or under water)	Temperature resistance Corrosion and heavy load: 60°C, Light load or no load: 100°C, As filler: 160°C Chemical resistance After curing, the Wencon UW Coating will be resistant to oil, water, saltwater, most diluted acids and a range of solvents.
Wencon UW Putty	Two part Epoxy based compound (for under water applications)	Temperature resistance Corrosion and heavy load: 60°C, Light load or no load: 100°C, As filler: 160°C Chemical resistance After curing, the Wencon UW Coating will be resistant to oil, water, saltwater, most diluted acids and a range of solvents.

WENCON (021923)
PDA no.: 22-2298636-PDA
Model: As per below
Issuance Date: 08-Sep-2022
Expiration Date: 07-Sep-2027

Model Name

Product Name	Product Type	Ratings
Wencon 1088	Two part Epoxy based compound	Temperature Resistance Corrosion: 160°C, Light load: 220°C, As filler: 300°C Chemical Resistance The compound is resistant to aqueous solutions, acids and alkalis as well as a several aggressive acids and caustics.
Wencon Ceramic Coating	Two part Epoxy based compound (high abrasive resistance)	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 300°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.
Wencon Ceramic Cream	Two part Epoxy based compound (high abrasive resistance)	Temperature Resistance Corrosion: 60°C, Light load: 120°C, As filler: 300°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.
Wencon PipeTape (Not to be used on Pipe Repairs on Offshore Assets; See “ABS GUIDANCE NOTES ON COMPOSITE REPAIRS OF STEEL STRUCTURES AND PIPING”)	Glass fibre reinforced with a polyurethane resin matrix	Temperature Resistance Continuous: 120°C Pressure Resistance Pipe pressure with Wencon Putty: 50 Bar Pipe pressure without Wencon Putty: 10 Bar Chemical Resistance The compound is resistant to oil, water, saltwater and diluted acids and alkalis.
Wencon Exhaust	Silica based compound	Temperature Resistance Up to: 1300°C Chemical Resistance The compound is resistant to oil, water, saltwater and most diluted acids and alkalis as well as a range of solvents.