



CERTIFICATE NUMBER	20-1987566-PDA
EFFECTIVE DATE	28-May-2020
EXPIRY DATE	27-May-2025
ABS TECHNICAL OFFICE	London Ship Eng - Materials

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 Epoxy Resin Chock

Model WEICON CBC

This Product Design Assessment (PDA) Certificate remains valid until 27/May/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

Nikolaos (Nikos Vrellos) Vrellos, Engineer/Consultant

Type text here

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)

WEICON GMBH & CO. KG

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Web: www.weicon.com

Tier: 2 - PDA Issued

Product: Epoxy Resin Chock

Model: WEICON CBC

Intended Service:

Marine, Offshore & Industrial application - Foundation chocking of propulsion machinery, generators, deck machinery, sterntubes, strut and rudder bearings and other auxiliary machinery.

Description:

Two part Epoxy resin with aluminium filler for the shimming and back filling of difficult to be aligned systems. It serves as a replacement for fittings and worn metal sheets and ensures the direct contact to foundation plates.

Rating:

Mixing ratio by weight %, Resin:Hardener - 100:30

Compressive strength - 70 N/mm²

Tensile Modulus - 4170 N/mm²

Hardness - 80 Shore D

Service Temperature

- up to 50 °C, degrees Celsius, in as cured condition at room temperature.

- up to 80 °C, degrees Celsius, after curing at room temperature and tempering at 90 °C degrees Celsius.

Loading conditions at service temperature

- Deadweight loading, due to machinery weight only, should not exceed 0.9 N/mm².

- Total loading on the resin chocks, due to deadweight of the machinery plus hold down bolts, shall not exceed 5 N/mm².

- For alignment sensitive equipment, the maximum loads and temperature are to be reviewed on a case by case basis in accordance with the manufacturer requirements and ABS Rules.

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.

Comments:

1. Prior to each individual installation for alignment of sensitive equipment, a chocking plan is to be submitted for review and shall include the total dead weight of the unit to be chocked, number and size of chocks, number and size of holding down bolts including tightening torque, etc., and calculations showing that the manufacturer's specified allowable pressure is not exceeded, are to be submitted for review in each case as per 4-2-1/11.5, 4-3-2/11.1.3 and 4-3-4/21.1 of ABS Steel Vessels Rules.

2. The arrangements and installation procedures for alignment sensitive equipment are to be in accordance with the equipment Manufacturer's recommendations.

3. In case of chocking installation for stern tubes and struts the assembly should have means to prevent bearing(s) from rotating with the shaft. In addition, there should be a sealing arrangement to prevent seawater contact with the chocking material and inflow into the bearing unless this is a water lubricated arrangement. The machinery manufacturers shall be consulted regarding their approval/recommendations in connection with the use of WEICON CBC.

4. The chocking installation is to be carried out by qualified personnel in accordance with WEICON's established and recommended procedure. Upon completion of the pouring of subject compound correct alignment of the machinery is to be verified and suitable warning notices are to be fitted in conspicuous places in the relevant compartment to avoid unintentional re-tightening of down holding foundation bolts.

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5. Minimum thickness of the chock is a function of application's ambient temperature as per resin chock Manufacturer's instruction Manual.

6. Upon completion of the solidification/curing of subject compound, correct alignment of the machinery is to be verified and suitable warning notices are to be fitted in conspicuous places in the relevant compartment to avoid unintentional re-tightening of hold down foundations bolts.

7. Sufficient information, instructions, alignment and measuring records, as well as the necessary tools, are to be provided on board for future checking of the alignment, chocks, and pre-tensioning of bolts.

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

Notes/Drawing/Documentation:

Drawing No. Correspondence, Cost Confirmation and Feedback

Drawing No. CBC Epoxy Resin (Plastic Steel) Questionnaire Filled, Material Variables

Drawing No. Correspondence, Correspondence

Drawing No. Correspondence, Client Answer

Drawing No. Correspondence, Cost Agreement and Feedback

Drawing No. QA and Accreditation, Accreditation

Drawing No. Type Approval Request Form CEO-ATT-00920 Rev, PDA Request Form

Drawing No. Product Info, Product Properties

Drawing No. WEICON CBC Instruction manual D-GB, Installation Manual

Drawing No. Correspondence, PDA Confirmation

Terms of Validity:

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STANDARDS

ABS Rules:

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

2020 Marine Vessels Rules: 4-2-1/11.5, 4-3-2/11.1.3, 4-3-4/21.1

2020 Steel Vessels Rules: 4-2-1/11.5, 4-3-2/11.1.3, 4-3-4/21.1

2020 High Speed Craft Rules 4-3-1/23.3.5

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

2020 Offshore Support Vessels Rules: 4-2-1/11.5, 4-3-2/11.1.3, 4-3-4/21.1

National:

NA

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International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA