

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Hatch Cover Slide Pads**with type designation(s)
ZX-31

Issued to

Qingdao Zhixiang Composites Co., Ltd.
Qingdao, Chinais found to comply with
DNV GL rules for classification – Ships**Application :****Bearing pad for hatch covers**Issued at **Hamburg** on **2021-02-25**This Certificate is valid until **2026-02-24**.DNV GL local station: **Qingdao NB & CMC**for **DNV GL**Approval Engineer: **Joachim Rehbein**

Thorsten Lohmann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **262.1-034408-1**
Certificate No: **TAS00002XV**

Product description

ZX-31: Fibre reinforcement phenolic resin incorporating solid lubricants.

Application/Limitation

Low friction resting pads for cargo hatch covers.

Lubrication: - Dry
Permissible nominal surface pressure: - 50 MPa
Dimensions: - According to DNV GL approved drawings

Any significant changes of quality of the material will render the approval invalid.

It is in the responsibility of Qingdao Zhixiang Composites Co., Ltd. to ensure, that technical properties of pads from the current production correspond to the mechanical properties of the tested pad.

Type Approval documentation

Tests carried out

Production quality tests

Marking of product

Product shall be marked with manufacturer's name and type designation.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Examination is complied with and that no alterations are made to the product design or choice of materials.

Periodical assessments will be carried out bi-yearly (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

When possible, this assessment may be harmonised with normal surveys for product certification and / or other surveys and audits carried out.

END OF CERTIFICATE