Certificate no.:
TAK00002F5

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Insulation Materials for Gas Carriers

with type designation(s)
Reinforced Polyurethane Foam (R-PUF): Y-HF-S2-120 (210mm, 7 layers of CSM)

issued to

Jiangsu Yoke Technology Co.,Ltd

Yixing, Jiangsu, China

is found to comply with

Gaztransport & Technigaz Specification Nr. M3007, Reinforced Polyurethane Foam (R-PUF), Rev. 03, November 2015
Gaztransport & Technigaz Specification Nr. M3505, NO96-L-03: Reinforced Polyurethane Foam (R-PUF), Rev. 01, September 2012
Gaztransport & Technigaz Specification Nr. M3533, Reinforced Polyurethane Foam 130kg/m3 (R-PUF 130), Rev. 01, October 2021

Application:

For the use in Gaztransport & Technigaz (GTT) MARKIII/FLEX and NO96 L03/L03+/Super+ Cargo Containment Systems (CCS) technologies of Liquefied Gas (LG) carriers.

Issued at **Hamburg** on **2024-10-28**
This Certificate is valid until **2029-10-27**.
DNV local unit: **Jiangyin NB & CMC**

for **DNV**

Approval Engineer: **Gisle Hersvik**

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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

Product description

Y-HF-S2-120
Reinforced Polyurethane Foam (R-PUF), which contains 7 layers CSM of 450 g/m^2 each, board thickness 210 mm.
Blowing agent: HFC-245fa
Nominal density: 130 kg/m^3

Application/Limitation

For use in MARKIII/FLEX and NO96 L03/L03+/Super+ Cargo Containment Systems (CCS) technologies.

The material is only approved for use in Cargo Containment System (CCS) technologies of Liquefied Gas (LG) carriers built under license from GAZTRANSPORT & TECHNIGAZ SAs (GTT).

Deliveries to actual shipbuilding projects shall be in compliance with relevant GTT Specification:
- Nr. M3007 "Reinforced Polyurethane Foam (R-PUF)", latest Rev. 03 dated November 2015
- Nr. M3505 "NO96-L03: Reinforced Polyurethane Foam (R-PUF)", latest Rev. 01 dated September 2012.
- Nr. M3533 "Reinforced Polyurethane Foam (R-PUF 130)", latest Rev. 01 dated October 2021,

The product shall have a valid approval from GTT.

Any significant changes in design and / or quality of the material will render the approval invalid.

Type Approval documentation

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**.

Marking of product

Product/package shall be marked with the *manufacturer's name*: **Jiangsu Yoke Technology Co., Ltd., China**, or *manufacturer's identification letter(s)*, *Lot No.*, *Size*, *Quantity* and *type designation*.

The marking is to be carried out in such a way that it is visible, legible and indelible.

Periodical assessment

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

Periodical assessments (for Certificate Retention / Certificate Renewal) shall be performed according to DNV-CP-0338.

This certificate is only valid if required Periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE