Certificate No:
**TAK000025U**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Insulation Materials for Gas Carriers**

with type designation(s)
**Y-M3-SL (Single Leg)**

Issued to
## Jiangsu Yoke Technology Co.,Ltd
**Yixing, Jiangsu, China**

is found to comply with
**Gaztransport & Technigaz Specification Nr. M3112, MarkIII: Single Legs Prefabricated Elements, Rev. 06, September 2017**

## Application :

**Insulation Panels used in Mark III/FLEX Type Cargo Containment Systems (CCS) according to the membrane design of GazTransport & Technigaz (GTT).**

Issued at **Høvik** on **2022-10-18**
This Certificate is valid until **2027-10-17** .
DNV local unit: **Jiangyin NB & CMC**

Approval Engineer: **Gisle Hersvik**

for **DNV**

**Gustav Heiberg**
**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 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-M3-SL**

Single leg **Y-M3-SL** is an insulation panel used in cryogenic containment system based on GTT's Mark III/FLEX membrane design. It is made by plywood, reinforced rigid polyurethane foam, PU adhesive and rigid secondary barrier, as detailed in manufacturer's technical data sheet: Y-M3-SL.

## Application/Limitation

Materials and components used in manufacturing of Y-M3-SL (as detailed in the Technical Data Sheet) shall be in accordance with relevant GTT specifications.

The product Y-M3-SL is only approved for use in MARK III/FLEX Cargo Containment Systems (CCS) type LNG carriers built under license from GAZTRANSPORT & TECHNIGAZ SA (GTT).

Deliveries to actual shipbuilding projects shall be in compliance with the "MarkIII: Corner Panels Prefabricated Elements" specification, GTT document no. M3112, Rev. 06 dated September 2017.

The product shall have a valid approval from GTT and the conditions stated in the approval to be adhered to.

## 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 *manufacturer's name, place of production* 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