Certificate No: LR23233112LNG
Issue Date: 25/05/2023
Expiry Date: 24/05/2028

Certificate of General Approval for LNG Containment System Component

This certificate is issued to the company below to certify that the undernoted LNG system components have been examined for conformity with Lloyd's Register's "Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk", together with the relevant Gaz Transport & Technigaz (GTT) specifications and has been found to be acceptable.

Manufacturer	**Hankuk Carbon Co., Ltd.**
Address	85, Chunhwa-ro, Bubuk-myeon, Miryang-si, Gyeongnam, 50403, Republic of Korea
Place of Production	Hankuk Carbon Co., Ltd, Plant 2, 719-13, Sangnam-ro, Sangnam-myeon, Miryang-si, Gyeongnam, Republic of Korea
Product Name	**R-PUF HRF-150LX 290mm HFC-245fa/HFO-1233zd 150 kg/m3 11 CSM**
Product Type	High Density Reinforced Polyurethane Foam 150 kg/m3
Approval Documentation	• GTT Test Report No. MAT-RPT-003231 R02, dated 08 Jul 2022 • SK pucore Fire Test Report, dated 23 May 2023, witnessed by LR
Reference Documentation	High Density Reinforced Polyurethane Foam 150 kg/m3 GTT Specification No. M3045, Rev. 01 (June 2021)
Application	The product listed above may be used as indicated on approved drawings for vessels classed with Lloyd's Register in GTT membrane LNG containment systems. If either the GTT reference documentation mentioned above is altered to a later version, or if the products listed above change in design or composition, this certificate becomes invalid.

Downloaded Copy

Dariusz Boryszewski

Containment Systems Lead Specialist to
Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.