



UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

Lloyd's Register Marine Limited (LRM Ltd), a UKAS accredited product certification body No. 23495, did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of The Merchant Shipping (Marine Equipment) Regulations 2025 (SI 2025/1280), subject to any conditions in the schedule attached hereto.

Manufacturer	Thermaflex Izolacji Sp. z o.o.
Address	Przemysłowa 6, Żarów, 58-130, Poland
Reference	MSN 1874 Amendment 11
Regulation Item (No. & Item Designation)	UK/3.18d Surface Materials And Floor Coverings With Low Flame-Spread Characteristics: Pipe Insulation Covers
Product Type	MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS & NOT CAPABLE OF PRODUCING EXCESSIVE SMOKE & TOXIC PRODUCTS OF COMBUSTION
Product Description	Polyolefin foam covered with aluminium foil
Trade Name	ThermaSmart Marine 4.0
Specified Standard	IMO Res. MSC.307(88) – (2010 FTP Code) Annex 1, Part 5 and Annex 2

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

This certificate is issued under the authority of the MCA. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

The "United Kingdom conformity mark" may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2025, is fully complied with and controlled by a written inspection agreement with an Approved Body.

Lloyd's Register Marine Limited (Reg. no. 13281335) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK.
A member of Lloyd's Register group.

Marta Walk

Fire & Safety - Senior Specialist
For and on behalf of Lloyd's Register Marine Ltd. (8512)

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.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2476122UKMB-02

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and the Merchant Shipping (Marine Equipment) Regulations 2025 for the UK Type Examination of marine equipment for use on UK ships.

This Design Appraisal Document forms part of the Certificate.

This certificate is an Amendment of the Certificate Number **LR2476122UKMB-01**.

APPROVAL/EXAMINED DOCUMENTATION

RISE, Research Institutes of Sweden AB, Brinellgatan 4, Borås, Sweden, Fire Test Report No. O100743-1226885, dated 7th February 2024.

CONDITIONS OF CERTIFICATION

1. When applied on a metallic substrate.
2. 'ThermaSmart Marine 4.0' consist of extruded polyolefin, ThermaSmart PRO HF, with up to the 2% of dye, as the third layer which ranges from 10 mm to 150 mm thickness. The second layer consists of aluminium foil, while the first (Top) layer BAFE-2520 tape, produced by Jiangyin BondTape Technology Corporation, each having a thickness of 25 microns
3. Smoke and toxicity criteria are satisfied by meeting the total heat release (Qt) and peak heat release rate (Qp) as stated in IMO Res.MSC.308(88) - (2010 FTP Code), Annex 1, Part 5 & Annex 2, Section 2.2
4. Product density up to 40 kg/m³.
5. Product to be used for pipe insulation purpose only.
6. As per SOLAS Chapter II/2 Regulation 5.3.1.1, Insulating materials shall be non-combustible, except in cargo spaces, mail rooms, baggage rooms and refrigerated compartments of service spaces. Vapour barriers and adhesives used in conjunction with insulation, as well as the insulation of pipe fittings for cold service systems, need not be of non-combustible materials, but they shall be kept to the minimum quantity practicable, and their exposed surfaces shall have low flame-spread characteristics.
7. Composition, application and installation of subcomponents, including adhesives, glass, seals and any fire retardants, to be maintained in production and use in accordance with originally tested composition formula and method of application and installation, and manufacturer's instructions.
8. Each item, batch or lot of the equipment is to have the "UK Conformity Mark" affixed and be issued with a "UK Declaration of Conformity" affixed after a conformity assessment module is in place.
9. Production items of subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance System (Module D), a Product-Quality Assurance System (Module E) or a Product Verification Process (Module F), as applicable. The UK Conformity Mark cannot be affixed to the product until a conformity assessment module is in place.
10. The Certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products are fully compliant with the relevant statutory regulations as applicable and are designed, manufactured and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.
11. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This Certificate will require to be updated for Approval to be maintained.
12. The manufacturer must keep a copy of the UK type-examination certificate, its annexes and additions together with the technical documentation at the disposal of the national authorities for a period of at least 10 years after the UK Conformity Mark has been affixed on the last product manufactured and, in no case for a period shorter than the expected life of the marine equipment concerned.

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.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2476122UKMB-02**PLACE OF PRODUCTION****Thermaflex Izolacji Sp. z o.o.**

Przemysłowa 6
58-130 Żarów
Poland

M. Walk.

Marta Walk

Senior Specialist, Fire & Safety

Statutory Discipline Team, Marine & Offshore

Lloyd's Register EMEA

**For and on behalf of Lloyd's Register Marine Ltd.
(LRM Ltd) - UK Approved Body 8512**

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.