



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 06-FEB-2023. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Synthetic Rubber Foam for Insulating Material
Model Name(s): K-Flex ST

Presented to:
K-FLEX POLSKA SP. Z O.O.
WIELENIN KOLONIA 50B
99-210
Poland

Intended Service:	Insulating material / vapour barrier of low flame spread properties for use in refrigeration systems and chilled water piping for air-conditioning systems.
Description:	Synthetic rubber foam with density of 50 Kg/Metre ³
Tier:	3
Ratings:	In accordance with IMO Resolution A653(16). Temperature range: -200 degrees C to +105 degrees C.
Service Restrictions:	1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined. 2. For use as insulating material in refrigeration systems and chilled water piping for air-conditioning systems (i.e. cold water systems) as per paragraph 3.1.1 of Regulation 5 Chapter II-2 of SOLAS (Consolidated Edition 2014) as amended. (Hot/cold water supply system is not considered as a cold service system.) 3. The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.
Comments:	The manufacturer has provided a declaration about the control of, or the lack of asbestos in this product. Unless specially directed by Administration, this approval is not to be construed as a substitute for Flag Administration's approval for the purpose of SOLAS (Consolidated Edition 2014), as amended. This certificate may

Notes / Documentation: not be used for EU and US flagged vessels (MED and/or USCG have their own specific/requirements).
 Drawing No. IN CLAD ST 25mm - IMO MSC 61(67) part 5 - W 154270, test report dated 07 June 2006 at Warrington Fire Laboratory, Revision: 0, Pages: 1 Drawing No. IN CLAD ST 25mm - IMO MSC 61(67) part 5 - W 361780, data sheet, Revision: 0, Pages: 1 Drawing No. K-FLEX_INT_CAT_IN CLAD_0116, brochure, Revision: 0, Pages: 1

Term of Validity: This Product Design Assessment (PDA) Certificate 18-GE1717819-PDA-DUP, dated 07/Feb/2018 remains valid until 06/Feb/2023 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules: 2018 Rules for Conditions of Classification - Offshore Units and Structures 1-1-4/9.7, Appendix 2 and 3 2018 Rules for Conditions of Classification, 1-14/7.7, 1-1 Appendix 3 and 4

National Standards:
International Standards: IMO Resolution MSC 61(67), Annex 1, Part 2 adopted on 5 December 1998 IMO Resolution A.653(16), adopted on 19 October 1989

Government Authority:
EUMED:
Others:

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA-DUP	18-GE1717819-PDA-DUP	09-FEB-2018	06-FEB-2023



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.