



Marine & Offshore
Division

Certificate number: 19786/B0 BV

File number: ACI 1360/024/002

Product code: 5225H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

Thermaflex Isolatie B.V.

Waalwijk - NETHERLANDS

for the type of product

INSULATION MATERIALS FOR PIPING

ThermaSmart PRO

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4,
SOLAS 74 Convention, as amended, Regulations II-2/3, II-2/5, II-2/6, II-2/9 & X/3
IMO Res. MSC.36(63) - (1994 HSC Code) - as amended, 7
IMO Res. MSC.97(73) - (2000 HSC Code) - as amended, 7
IMO Res. MSC.307(88) (2010 FTP Code)
IMO MSC/Circ.1120

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 21 Dec 2020

For BUREAU VERITAS,

At BV GRONINGEN, on 21 Dec 2015,

John Mondt



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarpm.com/veristamb/jsp/viewPublicPdfTypepec.jsp?id=qyloqz3ivc>

BV Mod. Ad.E 530 October 2014

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

ThermaSmart PRO

Polyolefin insulation foam for cold services (see § 4) glued to the pipe with Thermaglu 474 (250 g/m²).

Maximum thickness : 32 mm

Nominal density : 33 kg/m³

Note: tested on steel sheet (3 mm thick).

2. DOCUMENTS AND DRAWINGS :

Technical data sheet dated 06/2015.

3. TEST REPORTS :

Test report N° 17409A dated 26/10/15, as per IMO 2010 FTP Code Annex 1 Part 3, from Warringtonfiregent NV, Belgium.

4. APPLICATION / LIMITATION :

4.1 - For use as insulating material in refrigeration systems and chilled water piping for air-conditioning systems, in machinery spaces and only in concealed areas (not exposed) in accommodation, service spaces and control stations.

4.2 - The fitting aboard to be the same as used for the test.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The "ThermaSmart PRO" are to be supplied by "Thermafex Isolatie B.V" in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

5.3 - "Thermafex Isolatie B.V" has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products and has declared the following production sites :

Thermafex Izolacji Spółka z o.o
ul.Przemysłowa 6
58-130 Zarów
Poland

Thermafex Insulation Asia CO. Ltd
Main office and factory
10 Moo 12 Nong-Prue
Banglamung Chonburi 20260
Thailand

6. MARKING OF PRODUCT :

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

7- OTHERS :

7.1 - This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper methods of fitting and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate n° 19786/A0 BV issued on January 18th, 2010 by the Society.

*** END OF CERTIFICATE ***

29 DEC 2015



**BUREAU
VERITAS**

Thermaflex Isolatie B.V.
Veerweg 1
P.O.Box 531
5140 AM Waalwijk
NETHERLANDS
Attn: Mr. de Bell

Rotterdam, 22/12/2015

Subject : Type Approval Certificate

Our Ref : DPO Administration/2015/023807/RHE

Dear Sirs,

Please find herewith enclosed the following Type Approval Certificate(s):

- **19786/B0 BV 7 28587/B0 EC.**

Please be informed that our invoice will follow.

Yours faithfully,
BUREAU VERITAS



Rutger Heij
Dutch Plan approval Office

Encl.: a/s

Bureau Veritas Marine Nederland B.V.

Kantoorgebouw

De Witte Keizer

Vissersdijk 223 - 241

3011 GW Rotterdam

Postal adress

P.O.box 1046

3000 BA Rotterdam

Tel.: +31 (0)10 282 26 66

Fax: +31 (0)10 241 10 10

Head Office

67/71 Boulevard du Château

92200 Neuilly-sur-Seine, France

Société Anonyme

with capital of 80335 725 F

RCS Nanterre B 775 690 621