

**EC-TYPE EXAMINATION  
CERTIFICATE (MODULE B)**

Certificate No:  
**MEDB00003T6**  
Revision No:  
**3**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

**This is to certify:**

**That the Surface materials and floor coverings with low flame-spread characteristics:  
decorative veneers**

with type designation(s)  
**Surface materials**

Issued to  
**KNAUF INSULATION d.o.o.**  
**Novi Marof, Varaždinska, Croatia**

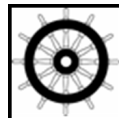
is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2019/1397,**  
**item No. MED/3.18a. SOLAS 74, Reg. II-2/3, II-2/5, II-2/6 & X/3, IMO MSC/Circ. 1120, 2000  
HSC Code 7 and IMO 2010 FTP Code**

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-05-14.**

Issued at **Høvik** on **2020-04-15**

DNV GL local station:  
**Rijeka**



for **DNV GL AS**

Approval Engineer:  
**Karolina Kusmider**

Notified Body  
No.: **0575**

.....  
**Roald Vårheim**  
**Head of Notified Body**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



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### Product description

Surface materials made of mineral wool bonded with phenol formaldehyde resin or with ECOSE/  
 E-Technology (carbohydrate) binder.

Products names <sup>1)</sup> :	Nominal Density [kg/m <sup>3</sup> ]:	Organic content:		Description:
		ECOSE (E-Technology)	PF resin	
BD 035 VBS (VBD)	35	≤ 5%	≤5%	Fire protection boards (black colour glass veil coated)
BD 040 VBS (VBD)	40			
BD 050 VBS (VBD)	50			
BD 060 VBS (VBD)	60			
BD 070 VBS (VBD)	70			
BD 080 VBS (VBD)	80			
BD 090 VBS (VBD)	90			
BD 100 VBS (VBD)	100			
BD 110 VBS (VBD)	110			
BD 120 VBS (VBD)	120			
BD 135 VBS (VBD)	135			
BD 150 VBS (VBD)	150			
BD 160 VBS (VBD)	160			
BD 170 VBS (VBD)	170			
BD 180 VBS (VBD)	180			
BD 190 VBS (VBD)	190	≤ 5%	≤5%	Fire protection boards (white colour glass veil coated)
BD 200 VBS (VBD)	200			
BD 035 VWS (VWD)	35			
BD 040 VWS (VWD)	40			
BD 050 VWS (VWD)	50			
BD 060 VWS (VWD)	60			
BD 070 VWS (VWD)	70			
BD 080 VWS (VWD)	80			
BD 090 VWS (VWD)	90			
BD 100 VWS (VWD)	100			
BD 110 VWS (VWD)	110			
BD 120 VWS (VWD)	120			
BD 135 VWS (VWD)	135			
BD 150 VWS (VWD)	150			
BD 160 VWS (VWD)	160			
BD 170 VWS (VWD)	170			
BD 180 VWS (VWD)	180			
BD 190 VWS (VWD)	190			
BD 200 VWS (VWD)	200			
BD 040 WWS 22 (WWD 22)	40	≤ 5%	-	Fire protection boards (white color 220 g/m <sup>2</sup> woven coated)
BD 050 WWS 22 (WWD 22)	50			
BD 060 WWS 22 (WWD 22)	60			
BD 070 WWS 22 (WWD 22)	70			
BD 080 WWS 22 (WWD 22)	80			
BD 090 WWS 22 (WWD 22)	90			
BD 100 WWS 22 (WWD 22)	100			
BD 110 WWS 22 (WWD 22)	110			
BD 120 WWS 22 (WWD 22)	120			
BD 135 WWS 22 (WWD 22)	135			
BD 150 WWS 22 (WWD 22)	150			

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BD 160 WWS 22 (WWD 22)	160			
BD 170 WWS 22 (WWD 22)	170			
BD 180 WWS 22 (WWD 22)	180			
BD 190 WWS 22 (WWD 22)	190			
BD 200 WWS 22 (WWD 22)	200			
BD 040 WWS 43 (WWD 43)	40	≤ 5%	-	Fire protection boards (white color 430 g/m <sup>2</sup> woven coated)
BD 050 WWS 43 (WWD 43)	50			
BD 060 WWS 43 (WWD 43)	60			
BD 070 WWS 43 (WWD 43)	70			
BD 080 WWS 43 (WWD 43)	80			
BD 090 WWS 43 (WWD 43)	90			
BD 100 WWS 43 (WWD 43)	100			
BD 110 WWS 43 (WWD 43)	110			
BD 120 WWS 43 (WWD 43)	120			
BD 135 WWS 43 (WWD 43)	135			
BD 150 WWS 43 (WWD 43)	150			
BD 160 WWS 43 (WWD 43)	160			
BD 170 WWS 43 (WWD 43)	170			
BD 180 WWS 43 (WWD 43)	180			
BD 190 WWS 43 (WWD 43)	190			
BD 200 WWS 43 (WWD 43)	200			
BD 035 ALU	35			
BD 040 ALU	40			
BD 050 ALU	50			
BD 060 ALU	60			
BD 070 ALU	70			
BD 080 ALU	75- 80			
BD 090 ALU	90			
BD 100 ALU	100			
BD 110 ALU	110			
BD 120 ALU	120			
BD 135 ALU	135			
BD 150 ALU	150			
BD 160 ALU	160			
BD 170 ALU	170			
BD 180 ALU	180			
BD 190 ALU	190			
BD 200 ALU	200			
PB 680	120	≤ 5%	≤ 5%	Grooved fire protection boards - pipe belt (aluminium foil coated)

Notes:

- 1) All product names have always one of the following prefixes: Sea-teK, Power-teK, Thermo-teK, Fire-teK, Sound-teK.

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Products names 1):	Nominal Density [kg/m3]:	Organic content:		Description:
		ECOSE (E-Technology)	PF resin	
FM 070 ALU	70	≤5%	≤5%	Felt mats (aluminium foil coated)
FM 080 ALU	80			
FM 100 ALU	100			
FM 120 ALU	120			
WM 620 GGA	70	≤5%	-	Wired mats reinforced with galvanized knittings and trimmed with galvanized steel wire (aluminium foil coated)
WM 640 GGA	80		≤5%	
WM 660 GGA	100			
WM 680 GGA	120			
WM 070 GGA	70	≤5%	-	Wired mats reinforced with galvanized knittings and trimmed with galvanized steel wire (aluminium foil coated)
WM 080 GGA	80		≤5%	
WM 100 GGA	100			
WM 120 GGA	120			
LM Eco ALU	32	≤5%	-	Lamella felt mat
LM Pro ALU	40		≤5%	
LM 450 ALU	50			
LM 550 ALU	60			
LM 700 ALU	80			
PC 080 ALU	80 - 90	≤5%	≤5%	Cut pipe sections (aluminium coated)
PS 680 ALU	90 - 160	≤5%	≤5%	Wound pipe section (aluminium coated)
PS Pro ALU	90 - 160			
PS Eco ALU	90 - 160	≤5%	≤5%	Wound pipe section (aluminium coated)
RL Eco ALL	25	<6,5%	-	Glass mineral duct roll (aluminium coated)
Notes:				
1) All product names have always one of the following prefixes: Sea-teK, Power-teK, Thermo-teK, Fire-teK, Sound-teK.				

### Application/Limitation

Approved for use as low flame spread surface material, not generating excessive quantities of smoke nor toxic products in fire.

Approved for use as decorative veneer on non-combustible substrate.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5 and to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Maximum gross calorific value shall be documented separately where applicable, ref. SOLAS Chapter II-2 Reg. 5.3.2.

Each product is to be supplied with its manual for installation, use and maintenance.

### Type Examination documentation

Test reports No.:

- 205CSO1403/1 dated 7 March 2005 (Nobasil LSP 50 = LM 450 ALU),
  - 205CSO1403/2 dated 7 March 2005 (Nobasil SH 35 1 x AL = BD 035 ALU),
- all from RINA, Italy.

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Test reports No.:

- 2011-B-1610/01 dated 28 June 2011 (FM D70 CB AluR =FM 070 ALU),
- 2011-B-1610/02 dated 28 June 2011 (FM D100 CB AluR =FM 100 ALU),
- 2011-B-1610/03 dated 28 June 2011 (DP-5 AluR = BD 050 ALU)
- 2011-B-1610/04 dated 28 June 2011 (DP-7 AluR = BD 070 ALU),
- 2011-B-1610/05 dated 28 June 2011 (WM 640 Alu = WM 640 GGA),
- 2011-B-1610/06 dated 28 June 2011 (WM 680 Alu = WM 680 GGA and WM 120 GGA),

all from MPA Dresden, Germany.

Test reports No.:

- SN 10/6986.1 dated 16 August 2011 (Heralan HTB 550 GVB = BD 060 VBS),
- SN 10/6986.2 dated 16 August 2011 (Heralan HTB 550 GVN = BD 060 VWS),
- SN 10/6986.3 dated 16 August 2011 (Heralan HTB D200 GVB = BD 200 VBS),
- SN 10/6986.4 dated 16 August 2011 (Heralan HTB D200 GVN = BD 200 VWS),
- SN 10/6986.5 dated 16 August 2011 (Heralan HTB D200 AluR = BD 200 ALU),
- SN 10/6986.6 dated 16 August 2011 (Heralan BS-6 50 AR = BD 060 ALU),
- 8115791710-10a dated 04 June 2018 (Sea-teK BD 035 VWS),
- 8115791710-10b dated 04 June 2018 (Sea-teK BD 035 VBS),
- 8115791710-10c dated 04 June 2018 (Sea-teK BD 200 VBS),
- 8115677131-10 dated 13 June 2018 (Sea-teK BD 200 VWS),

all from DMT GmbH & Co. KG, Dortmund, Germany.

Test reports No.:

- P116408 – Document DE/1 and DE/2 dated 18 October 2013 (KDR 034 AluR = RL Eco ALL)
- P150413 – Document DE/1 dated 16 December 2015, two test reports (MHTB D200 AluR = BD 200 ALU and MHTB 380 AluR =BD 035 ALU)

all from LNE Laboratoire De Trappes, France.

Test report No:

- 8116870075-30 dated 15 May 2019 (Sea-teK BD 040 WWS 22),
- 8117099919-10a dated 17 June 2019 (Sea-teK BD 200 WWS 22),
- 8117099919-10b dated 18 June 2019 (Sea-teK BD 200 WWS 43),

all from DMT GmbH & Co. KG, Dortmund, Germany.

## Tests carried out

Tested according to IMO 2010 FTP Code part 5 and Annex 2 Item 2.2 (for product RL Eco ALU, BD 200 ALU and BD 035 ALU) and IMO FTPC Part 5 and Annex 2 Item 2.2 and in compliance with IMO 2010 FTP Code Ch. 8.

## Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, Mark of Conformity and USCG approval number if applicable (see first page).