

Certificate number: 24480/A1 BV

File number: ACI 1000/129/40 to 45, 48,

54, 66, 88, 89, 90

Product code: 5210H

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

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

PAROC GROUP OY

HELSINKI - FINLAND

for the type of product

NON-COMBUSTIBLE MATERIALS

PAROC Marine Slab 22 - 30 - 40 - 60 - 80 - 130 - 140 - 150 - LO 150 - VLO 150 - 160 - 180 - 200 - 220 - 250 - PAROC Marine Floor Slab 140 - PAROC High Temperature Slab.

Requirements:

BV Rules Part C, Chapter 4.
SOLAS 74 convention as amended, Regulations II-2/3, II-2/5, X/3.
IMO Resolution MSC.36(63) - (1994 HSC Code) 7 and IMO Resolution MSC.97(73) - (2000 HSC Code) 7.
IMO Resolution MSC.61(67) - (FTP Code) Annex 1 Part 1.
IMO MSC/Circ.1120.

James Subs

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: 06 Jul 2016

For BUREAU VERITAS,

At BV HELSINKI, on 03 Oct 2011,

Tommy Andersson



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 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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Designation	Description	Nominal density (kg/m3)
PAROC Marine Slab 22	Stone wool slab	22
PAROC Marine Slab 30	Stone wool slab	30
PAROC Marine Slab 40	Stone wool slab Thickness from 50 mm till 100 mm	40
PAROC Marine Slab 60	Stone wool slab	60
PAROC Marine Slab 80	Stone wool slab	80
PAROC Marine Slab 130	Stone wool slab Thickness from 30 mm till 120 mm	130
PAROC Marine Slab 140	Stone wool slab	140
PAROC Marine Slab 150	Stone wool slab Thickness from 20 mm till 60 mm	150
PAROC Marine Slab LO 150	Stone wool slab (cut to lamellas)	150
PAROC Marine Slab VLO 150	Stone wool slab Thickness from 20 mm till 120 mm	150
PAROC Marine Slab 160	Stone wool slab Thickness from 50 mm till 100 mm	160
PAROC Marine Slab 180	Stone wool slab	180
PAROC Marine Slab 200	Stone wool slab	200
PAROC Marine Slab 220	Stone wool slab Thickness from 10 mm till 25 mm	220
PAROC Marine Slab 250	Stone wool slab	250
PAROC Marine Floor Slab 140	Stone wool slab Thickness from 30 mm till 100 mm	140
PAROC High Temperature Slab	High Temperature stone wool block Thickness from 20 mm till 100 mm	260 (thickness # 50 mm) 230 (thickness > 50 mm)

2. DOCUMENTS AND DRAWINGS:

None

3. TEST REPORTS:

Designation	Test reports from VTT, Finland	Date of issue
PAROC Marine Slab 22	N° VTT – S-8165-09	9 Nov 2009
PAROC Marine Slab 30	N° VTT - S-8214-10	18 Oct 2010
PAROC Marine Slab 40	N° VTT – S-10260-10	21 Dec 2010
PAROC Marine Slab 60	N° VTT – S-9427-09	14 Dec 2009
PAROC Marine Slab 80	N° VTT – S-9425-09	14 Dec 2009
PAROC Marine Slab 130	N° VTT – S-10528-10	28 Dec 2010
PAROC Marine Slab 140	N° VTT – S-8166-09	9 Nov 2009
PAROC Marine Slab 150	N° VTT – S-10307-10	21 Dec 2010
PAROC Marine Slab LO 150	N° VTT – S-8163-09	9 Nov 2009
PAROC Marine Slab VLO 150	N° VTT – S-10307-10	21 Dec 2010
PAROC Marine Slab 160	N° VTT S-10524-10	28 Dec 2010
PAROC Marine Slab 180	N° VTT – S-8167-09	9 Nov 2009
PAROC Marine Slab 200	N° VTT – S-2201-10	15 March 2010
PAROC Marine Slab 220	N° VTT – S-9536-10	1 Dec 2010
PAROC Marine Slab 250	N° VTT – S-9428-09	14 Dec 2009
PAROC Marine Floor Slab 140	N° VTT – S-8166-09	9 Nov 2009
PAROC High Temperature Slab	N° VTT – S-10389-10	28 Dec 2010

All test reports are as per IMO FTPC Part 1.

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4. APPLICATION / LIMITATION:

Flame spread, smoke characteristics and calorific value of the lining to be as per applicable regulation.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The "PAROC Marine Slab 22", "PAROC Marine Slab 30", "PAROC Marine Slab 40", "PAROC Marine Slab 60", "PAROC Marine Slab 130", "PAROC Marine Slab 140", "PAROC Marine Slab 150", "PAROC Marine Slab 150", "PAROC Marine Slab LO 150", "PAROC Marine Slab VLO 150", "PAROC Marine Slab 160", "PAROC Marine Slab 180", "PAROC Marine Slab 200", "PAROC Marine Slab 220", "PAROC Marine Slab 250", "PAROC Marine Floor Slab 140" and "PAROC High Temperature Slab" are to be manufactured, examined and tested by PAROC GROUP OY in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.
- 5.2 Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **PAROC GROUP**OY has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.
- 5.3 PAROC GROUP OY has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

PAROC GROUP OY P.O. Box 47 FI-00621 HELSINKI FINLAND

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 Society reserves the right to require check tests to be carried out on the materials at any time and that the applicant will accept full responsibility for informing shipbuilders, shipowners and their sub-contractors of the proper methods of fitting, use and general maintenance of the material (units, approved equipment) and the conditions of this approval.
- 7.2 This Certificate supersedes the Type Approval Certificate n° 24480/A0 BV issued on 06/07/2011 by the Society.

*** END OF CERTIFICATE ***