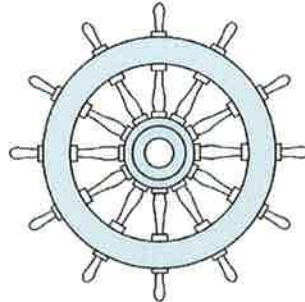


EC TYPE-EXAMINATION CERTIFICATE

according to Marine Equipment Directive (Module B)



NOTIFIED BODY 0809

This is to certify that VTT Expert Services Ltd 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 Marine Equipment Directive (MED) 2014/90/EU and Commission implementing regulation (EU) 2017/306 subject to any conditions in the schedule attached hereto.

Corrugated steel bulkhead A-60, PAROC Marine Fire Slab 100, 40 mm + 40 mm

meet the requirements imposed in IMO 2010 FTP Code Annex 1 Part 3
(IMO Resolution MSC.307(88) Annex 1 Part 3) on

Class A-60 Bulkhead

and the provisions of Marine Equipment Directive 2014/90/EU, that apply to

fire integrity of A-60 Class division.

These products have been assigned a U.S. Coast Guard Module B number (**164.107 / EC0809**) to note type approval to Module B only as it pertains to obtaining U.S. Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.

Manufacturer of the product is

Paroc Group Oy

The Certificate is valid until February 8, 2023 unless suspended, expired or withdrawn, provided the conditions in this certificate are complied with and the equipment remains satisfactory in service.

Espoo February 9, 2018

This document is electronically approved



Tiina Ala-Outinen
Business Manager



Heli Välimäki
Senior Expert

Manufacturer	Paroc Group Oy Energiakuja 3 P.O.Box 240 FI-00181 Helsinki Finland.
Regulation Item	Item MED 1/3.11a, "A" Class divisions, fire integrity.
Products	Corrugated Class A-60 Steel Bulkhead insulated with PAROC Marine Fire Slab 100, 40 mm + 40 mm.
Product description	<p>Corrugated "A" Class steel bulkhead, insulated with PAROC Marine Fire Slab 100 with nominal density of 100 kg/m³.</p> <p>Corrugated steel bulkhead is min. 2.0 mm thick and depth of corrugation can be varied from 40 mm to 90 mm and flange width from 120 mm up to 300 mm. Pitch from 286 mm to 700 mm.</p> <p>The insulation is applied in horizontal direction on two 40 mm thick layers on the corrugated steel surface. Insulation is fastened with pins and washers or with bent pins. Pins are fastened to the top flange of corrugation, c/c 300 mm unless the dimensions of the corrugation require to use shorter distance (min. 12 pins per m²).</p> <p>Insulation layers can be staggered with minimum of 120 mm distance.</p>
Approved application	Non-loadbearing A-60 class steel bulkhead. The construction shall not be used as part of main fire zone bulkheads and stairways enclosures on passenger ships (ref. IMO MSC/Circ. 1005).
Technical document	Drawings 17003-2 (7.4.2017) and 17003-1 (14.3.2017).
Test reports	Test Report PGA10999A, 30.3.2017, DBI, Denmark. Test Report PGA11036A, 1.5.2017, DBI, Denmark.
Test methods and standards	IMO 2010 FTPC Annex 1 Part 3 (IMO Resolution MSC.307(88) Annex 1 Part 3).
Notes	<p>This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.</p> <p>Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.</p> <p>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-control phase module (D, E or F) of Annex B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.</p>

END OF CERTIFICATE

