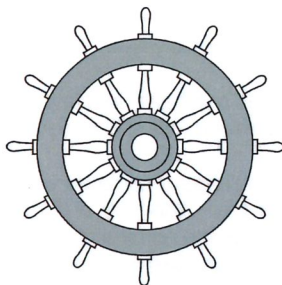


EC TYPE-EXAMINATION CERTIFICATE

according to Marine Equipment Directive (Module B)



NOTIFIED BODY 0809

This is to certify that Eurofins 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) 2018/773 subject to any conditions in the schedule attached hereto.

A-60 steel bulkhead, PAROC Marine Fire Slab 100 or PAROC Marine Wired Mat 100 or PAROC Marine Mat 100, 60/25 mm insulation

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 and amended by Decision No.1/2018 signed February 18th 2019.

Manufacturer of the product is

Paroc Group Oy

The Certificate is valid until August 19, 2024 unless suspended, expired or withdrawn, provided the conditions in this certificate are complied with and the equipment remains satisfactory in service.

Espoo August 20, 2019

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	MED /3.11a, "A" Class divisions, fire integrity.
Products	Class A-60 steel bulkhead insulated with PAROC Marine Fire Slab 100 or PAROC Marine Wired Mat 100 or PAROC Marine Mat 100, 60/25 mm.
Product description	<p>"A" Class steel bulkhead insulated with 60 mm thick stone wool slabs or mats, PAROC Marine Fire Slab 100 or PAROC Marine Wired Mat 100 or PAROC Marine Mat 100, having nominal density of 100 kg/m³. Insulation is applied in one 60 mm thick layer on steel bulkhead. Stiffeners are insulated with 25 mm thick insulation layer and possible cavity filled with insulation. Alternatively bulkhead can be insulated with 60 mm thick continuous Marine Mat.</p> <p>The insulation is fastened by using Ø 3 mm thick steel pins and Ø 30 mm steel washers or with bent pins without washers. Maximum distance to the nearest pin is horizontally and vertically 300 mm. Insulation on stiffeners shall be pinned on both sides. Insulation joints shall be compressed tightly between each other and if wired mat is used, it shall be tied together at joints.</p>
Approved application	A-60 class steel bulkhead, general application.
Technical document	Drawing 18032 (7.12.2018), DBI – 001 (5.3.2019), DBI – 002 (24.6.2019), DBI – 003 (13.8.2019).
Test reports	Test Report PGA11346A, 20.12.2018, DBI, Denmark. Assessment PHA11184D_2 (13.8.2019), DBI, Denmark.
Test methods and standards	IMO 2010 FTP Code 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