

APPROVAL CERTIFICATE

DNV·GL

This is to certify, that the product described below has been tested in accordance with the International Code for Application of Fire Test Procedures, 2010 (IMO Res. MSC. 307(88)) and was found to be compliant with the applicable performance criteria as required by this code.

Certificate No. **14 516 - 15 HH**

Company **ProfiSeal GmbH
Mühlerstrasse 13
55288 Schornsheim, GERMANY**

Product Description **ProfiSeal Series 500 fire resistant A-60 Bulkhead Seal (Ø 50 mm up to Ø 400 mm)**

Product Type **Dynamic Shaft Penetration**

Approval Standard **IMO Res. MSC.307 (88), Annex 1, Part 3**

Documents **Test report No. 20140917 and assessment No. 20140917.1 dated 2015-06-03 issued by MPA Dresden.**

Application **The above product will be accepted as being compliant with the applicable DNV GL Rules for Classification and Construction and with the international convention for the Safety of Life at Sea as amended, including the relevant IMO codes.**

Remarks **The sealing has been successfully tested according to water tightness in the test report No.N14062F2 dated 2015-02-09 issued by DNVGL.**
The company should notify DNV GL of any changes in the design or construction of the approved product. Any significant changes may render this certificate invalid.

Valid until **2020-07-12**


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Hamburg, 2015-07-13

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Technical documentation

The ProfiSeal Series 500 fire resistant A-60 Bulkhead Seal is a sealing ring assembly consisting of two stainless steel split housings with grooves in which split carbon sealing rings are fitted. The sealing ring assembly is fitted around the shaft, bolted to the class A-60 bulkhead and covered from both sides of the bulkhead with fire insulated split linings. The construction and installation of the bulkhead seal is illustrated in the drawing in Appendix A, Fig. 1.1 to Fig. 5.1 of the test report.

On the side of the bulkhead exposed to the fire hazard the bulkhead seal is fully covered with a fire insulated split lining. This lining consists of Firemaster Marine Plus Insulation covered with a perforated steel sheet of 1.5mm in thickness. From the opposite side of the bulkhead (unexposed to the fire hazard) a fire insulated split lining is mounted to the other side of the sealing ring housing through the cut out in the bulkhead.

Insulation material used for fire insulated split lining:

"Firemaster Marine Plus Blanket 38" made by Morgan Thermal Ceramics with a nominal thickness of 38mm and a density of 128kg/m³.

Installation:

Installation and maintenance are to be in accordance with the manufacturer's instructions.

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