



**EC TYPE EXAMINATION (MODULE B)  
CERTIFICATE No. MED032021XP**

***This is to certify** that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2020/1170.*

<i>MED Item N°</i>	<b>MED/3.58; MED/3.59</b>
<i>Description</i>	<b>Fixed low expansion foam fire extinguishing systems components for machinery spaces and tanker deck protection Expansion foam for fixed fire extinguishing systems for chemical tankers</b>
<i>Type</i>	<b>FOMTEC ARC 3x3</b>
<i>Applicant</i>	<b>DAFO FOMTEC AB</b> Vindkraftsvagen 8 SE-135 26 Tyreso SWEDEN
<i>Testing standards</i>	<b>IMO MSC.1/Circ.1312; IMO MSC.1/Circ.1312/Corr.1</b>
<i>Reference standards</i>	<b>IMO Res. MSC.4(48) - IBC Code</b>

*Issued in Gdańsk on*  
March 18, 2021

*This Certificate is valid until*  
March 17, 2026

*This Certificate consists of this sheet plus an attachment*



  
**Jaroslaw Kondracki**  
RINA Services S.p.A.





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*Manufacturer*

**DAFO FOMTEC AB - DAFO FOMTEC AB (Production & R&D)**

*Place of Manufacturer*

Garnisonsgatan 47A  
SE-254 66 Helsingborg  
SWEDEN

Technical Characteristics

Foam Concentrate FOMTEC ARC 3x3	
Type of foam concentrate	Aqueous Film Forming Alcohol-Resistant low expansion foam concentrate
Mixing Ratio	3%
Specific gravity [g/ml]	1.045
Viscosity at 20°C [mPas]	2410
pH at 20°C	6.5 - 8.5
Min. usage temperature [°C]	- 15
Max. usage temperature [°C]	+ 55
Expansion at 20 °C	7.5
Drainage 25% [min]	6' 50"
Use Concentration	Mix.ratio 3%: hydrocarbon fires and alcohol fires (polar solvents)

Field of Application

Fixed foam fire extinguishing systems using low expansion foam concentrate for extinguishing fires of oil products and chemicals liquids as per list contained in Chapter 17 of the International Bulk Chemical Code (column L - letters A, B and D).

Test Carried Out

According to IMO MSC/Circ.582 - "Guidelines for the performance and testing criteria and surveys of low-expansion foam concentrates for fixed fire-extinguishing systems" and MSC/Circ.799 - "Guidelines for the performance and testing criteria and surveys of low-expansion foam concentrates for fixed fire-extinguishing system of chemical tankers".

Technical Documentation

- RINA Test Report no. FPE 2004/CS/01/5045 dated 15/12/2004.
- RINA Test Report no. FPE 2005/CS/01/3803/1 dated 30/09/2005.
- RINA Test Report no. FPE 2005/CS/01/3803/2 dated 29/09/2005.
- RISE Test Report no. 8P08753 dated 28/11/2018 and filled with no. HMFP/3691,
- Fomtec ARC 3x3 data sheet dated 04/02/2014 and filled with no. PLFP/1237,
- Risk Assessment Fomtec AFFF 6% Ultra LT filed by RINA with n° PLFP/1238,
- Declaration of conformity issued by FOMTEC in compliance with MSC.1/Circ.1312.

Remarks

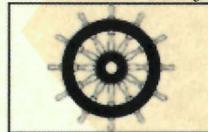
Each foam concentrate container should be marked with complete information needed to identify the liquid and confirm its intended use, in compliance with the requirement of Par. 3.13, MSC.1/Circ.1312.





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*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 II of the Directive is fully complied with a written inspection agreement with a Notified Body*



**XXXX/YYYY**

**"WHEELMARK FORMAT"**

**XXXX**      *Notified Body number undertaking surveillance module*  
**YYYY**      *The year in which the mark is affixed*

***General conditions for the approval***

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to be allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) 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.



  
**Jaroslaw Kondracki**

