

# Certificate Of Fire Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

<b>Manufacturer</b>	<b>Dafo Fomtec AB</b>
<b>Address</b>	Box 683, Tyresö, 135 26, Sweden
<b>Type</b>	Foam Concentrate
<b>Description</b>	Fire Extinguishing AFFF-AR Foam Concentrate Type: 'Fomtec ARC 1x3' for Low Expansion Foam Applications.
<b>Trade Name</b>	Fomtec ARC 1x3
<b>Specified Standard</b>	BS EN 1568-3 BS EN 1568-4

71 Fenchurch Street, London, EC3M 4BS, UK

**Saji Abraham**

Surveyor to Lloyd's Register EMEA  
A member of the Lloyd's Register Group

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This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document and its supplementary Type Approval Terms and Conditions form part of this Certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR1900428SF**

This Design Appraisal Document forms part of the Certificate.

This certificate is a renewal of Certificate No. SAS F140153

**APPROVAL DOCUMENTATION**

Lloyd's Register EMEA Certificate No. LIV 0333645/01A1 dated 17<sup>th</sup> April 2003 'Fire Extinguishing Media to EN 1568-3 and EN 1568-4 Specification'.

**CONDITIONS OF CERTIFICATION**

1. Foam concentrate type "ARC 1x3" for producing Low Expansion Foam": To be used in 1% minimum concentration in suitable equipment for hydrocarbon fuel applications and 3% minimum concentration in suitable equipment for polar solvent fuel applications
2. Performance levels achieved:

	Hydrocarbon Fire		Polar Solvent Fire	
	Freshwater	Seawater	Freshwater	Seawater
<b>Extinguishment</b>	CLASS 1	CLASS 1	CLASS 1	CLASS 1
<b>Burnback Resistance</b>	LEVEL A	LEVEL A	LEVEL A	LEVEL A

3. Foam concentrate should be stored above its freezing temperature of -30°C
4. To be tested after a period of 3 years and every year thereafter to verify that they remain fit for service in accordance with Annex 4 and 5 of the test standard, by independent laboratories or authorised service suppliers acceptable to the Administration
5. It must be confirmed that the test standard is acceptable for the project and application envisaged
6. This certificate only approves the fire performance and other characteristics of the foam concentrate in accordance with EN 1568-3 and EN 1568-4. The use of certain foam concentrates may also be subject to additional requirements, including environmental regulations, depending on the projects where they are to be used. Therefore, the suitability of the foam concentrate for each application must also be confirmed at the design stage by the Project Plan Approval authority
7. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype
8. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers, if agreed by Lloyd's Register, are fully compliant with the relevant statutory regulations and Lloyd's Register Class rules as applicable and designed and manufactured to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties

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**PLACE OF PRODUCTION**

Dafo Fomtec AB  
Garnisonsgatan 47A  
25466 Helsingborg  
Sweden



Saji Abraham  
Senior Specialist  
Fire & Safety, Statutory Discipline Team  
UK&I Technical Support Office, Marine & Offshore  
Lloyd's Register EMEA

**Supplementary Type Approval Terms and Conditions**

*This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).*