



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.

Manufacturer	Dafo Fomtec AB
Address	P.O. Box 683 SE - 135 26 Tyresö Sweden
Type	DRY CHEMICAL POWER
Description	Fire Extinguishing Dry Powder for A, B and C Class Fires – Types: "Renex ABC Standard, Renex ABC 40 and Renex ABC Forte"
Specified Standard	EN 615 and EN 3 as applicable

The attached Design Appraisal Document forms 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.

Date of issue 27 April 2018 Expiry date 26 April 2023

Certificate No. SAS F180119 Signed



Sheet No 1 of 2 Name T. Radtke
Surveyor to Lloyd's Register EMEA
A Member of the Lloyd's Register Group

Note:

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 of any modification or changes to the equipment in order to obtain a valid Certificate.

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DESIGN APPRAISAL DOCUMENT

Date 27 April 2018	Quote this reference on all future communications HTSO/STAT/TA/1865005/TRA
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F180119

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Lloyd's Register Witness Certificates Nos: LIV 602582/1A3 dated 04 June 2001, MCH 9902010/1B dated 11 April 2001 and MCH 0132934/03 dated 20 June 2001

CONDITIONS OF CERTIFICATION

1. Suitable for Class A, B and C fires.
2. Renex ABC Class dry powders are based on mono ammonium phosphate and ammonium sulphate and are treated with flow promoting and moisture repellent additives. The chemical composition of the dry powders are as detailed in the table below

Chemical Composition / properties	Renex ABC Standard	Renex ABC 40	Renex ABC Forte
Dry Powder Bulk Density (g/l)	0.87	0.90	0.95
Mono Ammonium Phosphate (%)	30	40	88
Ammonium Sulphate (%)	60	55	>2.0
Water repellent and Flow promoting Additives (%)	>2.0	>1.0	>2.0

3. 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.

PLACE OF PRODUCTION

Dafo Fomtec AB
Gamisonsgatan 47 A
254 66 Helsingborg
Sweden



Torsten Radtke
Senior Specialist Statutory Service
Lloyd's Register Marine
Hamburg Technical Support Office
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).