

*Project:* Fire Extinguishing Media to EN 1568-3 Specifications

*Certificate Number:* MCH 0032867/05A

*Client:* Dafo Fomtec AB  
PO Box 683  
135 26 Tyresö  
Sweden

*Office:* Liverpool

*Client's Order Number:*

*Date:* 10 May 2001

*Order Status:* Complete

*Inspection Dates*

*First:* 26.04.00

*Final:* 19.05.00

*This certificate is issued to* Dafo Fomtec AB *to certify that at their request, the undersigned Surveyor to this Society did select samples of FOMTEC AFFF 3%F, for the purpose of confirming that the properties were within the technical specifications and were in accordance with EN 1568-3.*

The necessary tests were witnessed by the Surveyor and the results obtained were all within the limits given in the manufacturers specification, and the requirements of EN 1568-3.

**Tolerance to freezing and thawing (Annex E)**

No stratification or non-homogeneity could be detected in the sample.

**Sediment (Annex C)**

Before ageing of the sample	=	<0.1%
After ageing of the sample (24 hours at 60°C)	=	<0.1%

**Viscosity at 20°C** = 4.2 c.st

**pH of the concentrate at 20°C** = 8.1

**Surface Tension, Interfacial Tension and spreading coefficient (Annex F)**

	<u>Surface Tension</u> Dynes/cm	<u>Interfacial Tension</u> Dynes/cm	<u>Spreading Coefficient</u> Dynes/cm
Before conditioning	17.0	2.1	+5.9
After conditioning at -			
-30°C for 24 hrs followed by 48hrs at 20°C			
(four cycles)	Top Sample	17.4	+5.3
	Bottom Sample	17.2	+5.7
After conditioning at -			
60°C for 7 days followed by 2 days at 20°C			
	Top Sample	17.3	+5.6
	Bottom Sample	17.2	+5.8

**Expansion and Drainage (Annex G)**

		<u>Fresh</u>	<u>Sea</u>
Before conditioning of the sample		Fresh	Sea
Expansion =		8.7	8.6
25% Drainage time =		3'22"	3'38"
After conditioning of the sample	Top	Bottom	Top
in accordance with Annex E			Bottom
Expansion =	8.5	8.8	8.5
25% Drainage time =	3'26"	3'30"	3.40"
			8.7
			3.44"

**Fire Tests (Annex H)****A) Forceful Application in accordance with EN 1568-3**

Fire tests carried out in accordance with Annex H1 and H2 using:-  
Fresh water and Sea water

Preburn time	60 seconds
Foam application	180 seconds
Wait after foam application	300 seconds
Fire tray	144B (4.5m <sup>2</sup> )
Fuel	Commercial Heptane on water bed

	<u>Fresh Water</u>	<u>Sea Water</u>
90% Control	37"	39"
99% Control	56"	58"
100% Extinction	138"	158"
25% Burnback time	N/A	N/A

Air Temp	20.5	12.5	11.0
Water Temp	16.5	15.0	15.0
Fuel Temp	17.2	15.5	15.5
Foam Temp	16.8	15.0	18.5
Wind Speed (m/sec.)	Nil	Nil	Nil

### B) Gentle application in accordance with EN 1568-3

Fire Tests carried out in accordance with Annex H1 and H3 using:=

Fresh water and Sea Water

Preburn time	60 seconds
Foam application	300 seconds
Wait after foam application	300 seconds
Fire tray	144B (4.52m <sup>2</sup> )
Fuel	Commercial Heptane on water bed

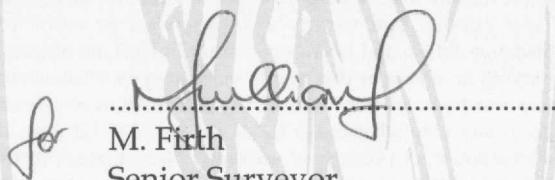
	Fresh Water	Sea Water	
90% Control	38"	38"	35"
99% Control	73"	65"	62"
100% Extinction	161"	Flicker	200"
25% Burnback time	17'4"	10'59"	14' 35"
Air Temp (°C)	15.4	14.3	12.5
Water Temp (°C)	15.5	15.5	15.5
Fuel Temp (°C)	15.5	15.5	16.0
Foam Temp (°C)	17.0	18.0	18.0
Wind Speed (m/sec.)	<1.0	<2.0	<0.5

From the above test results it is confirmed that FOMTEC AFFF 3%F is a film forming foam concentrate suitable for use at 6% concentration with fresh and sea water. FOMTEC AFFF 3%F has tolerance to freezing and thawing (Annex E). The product is suitable for storage above -30°C. The fire extinguishing performance class is 1 and the burnback resistance level is A using fresh and sea water.

Performance level achieved:

Extinguishment class 1 with fresh and sea water

Burnback resistance level A with fresh and sea water

  
M. Firth

Senior Surveyor