

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

*Certificate Number:* MCH 9902150/03A

*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:* 20.08.99

*Final:* 10.09.99

*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 6%, 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	=	1.5 c.st
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pH of the concentrate at 20°C	=	7.93
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**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	17.4	1.6	+6.0
After conditioning at - -30°C for 24 hrs followed by 48hrs at 20°C (four cycles)			
Top Sample	17.4	1.5	+6.1
Bottom Sample	17.4	1.6	+6.0
After conditioning at - 60°C for 7 days followed by 2 days at 20°C			
Top Sample	17.4	1.5	+6.1
Bottom Sample	17.6	1.6	+5.8

**Expansion and Drainage (Annex G)**

	Fresh		Sea	
	Top	Bottom	Top	Bottom
Before conditioning of the sample				
Expansion =		8.0		7.5
25% Drainage time =		3'00"		3'40"
After conditioning of the sample in accordance with Annex E				
Expansion =	8.0	8.3	7.7	7.8
25% Drainage time =	2'41"	2.45"	3'24"	3'32"

**Fire Tests (Annex H)****A) Forceful 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	180 seconds
Wait after foam application	300 seconds
Fire tray	144B (4.5m <sup>2</sup> )
Fuel	Commercial Heptane on water bed

	Fresh Water		Sea Water	
90% Control	42"	42"	44"	
99% Control	72"	100"	68"	
100% Extinction	178"	180"	115"	
25% Burnback time	N/A	N/A	N/A	

Air Temp	13°C	15°C	12.6°C
Water Temp	13°C	14°C	13°C
Fuel Temp	13°C	14°C	13°C
Foam Temp	19°C	19°C	19°C
Wind Speed (m/sec.)	<1.0	<1.0	<1.0

**B) Gentle 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	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	97" 68"	47"
99% Control	150" 90"	71"
100% Extinction	201" 151"	131"
25% Burnback time	12'25" 12'28"	15'23"

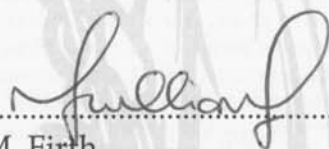
Air Temp	17°C	18°C	16°C
Water Temp	19°C	19°C	19°C
Fuel Temp	19°C	19°C	19°C
Foam Temp	19°C	19°C	19°C
Wind Speed (m/sec.)	<1.0	<1.0	<1.0

From the above test results it is confirmed that FOMTEC AFFF 6% is a film forming foam concentrate suitable for use at 3% concentration with potable and sea water. FOMTEC AFFF 6% 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 C using potable water and B using sea water.

Performance level achieved:

Extinguishment class 1

Burnback resistance level C

for   
 M. Firth  
 Senior Surveyor