

UNSER ANGEBOT



AFFF 3% M

Effiziente Bekämpfung von Bränden der Brandklasse B nach Mil-Spec und ICAO C



gelistet vom Department of
Defense (USA):
QPL Listed MIL-F-24385F

5,99 €

je Liter bei Abnahme von mind. 200 Liter

Preisangaben zzgl. gesetzl. Mehrwertsteuer

Das Produkt.

Fomtec AFFF 3% M ist ein hocheffektives, filmbildendes Schaumkonzentrat (AFFF) für Kohlenwasserstoffbrände der Klasse B, wie Öl-, Diesel- und Luftfahrtbrennstoffen. Der Schaum bildet einen wässrigen Film, der die Sauerstoffversorgung rasch unterbindet und eine stabile Schaumdecke ermöglicht. Diese unterdrückt die Freisetzung von brennbaren Dämpfen und kühlt die Brennstoffoberfläche. Der Brand wird gelöscht und eine erneute Zündung verhindert. Fomtec AFFF 3% M sollte 3%ig in Brack-, Frisch- oder Meerwasser verwendet werden. Es kann auch als Premix in Süßwasser gelagert werden.

Vorteile auf einem Blick.

- + hohe Löscheffizienz
- + Zumischrate: 3%
- + kompatibel mit allen trockenen, chemischen Pulvern und Nutzung in Pulver/Schaum-Twin-Agent-Systeme
- + höchste Qualitätsstandards
- + Listung nach militärischer Spezifikation „MIL-F-24385“ beim Department of Defense (USA):
<http://qpldocs.dla.mil/search/parts.aspx?qpl=1910>
- + ICAO Leistungsstufe C

Verpackungsformen.

25 Liter	Kanister
200 Liter	Fass
1000 Liter	Container (IBC)



*Haben Sie besondere Herausforderungen bei der Brandbekämpfung mit Schaum?
Gerne finden wir mit Ihnen gemeinsam aus unserem umfangreichen Produktportfolio das richtige Schaummittelkonzentrat. Wir stellen uns jedem Testszenario!*

Description

Fomtec AFFF 3% M is an aqueous film forming foam concentrate (AFFF) consisting of fluorocarbon and hydrocarbon surfactants blended with various solvents, preservatives and stabilizers.

The foam forms an aqueous film that rapidly cuts off the oxygen supply and knocks down the fire. The expanded foam, from which the film is drained, forms a stable blanket that suppresses the release of flammable vapors and cools down the fuel surface extinguishing the fire and preventing re-ignition.

The low surface tension of the water-foam solution enables the aqueous film, although heavier than the burning liquid, to float on top of the liquid surface.

Fomtec AFFF 3% M should be used at 3% proportioned solution (3 part concentrate in 97 parts of water) in brackish, fresh or sea water. It may also be stored as a premix solution in fresh water.

Application

Fomtec AFFF 3% M is intended for use on class B hydrocarbon fuel fires such as oil, diesel and aviation fuels. It can be used with both aspirating and non-aspirating discharge devices.

Fomtec AFFF 3% M is especially suited whenever rapid fire knock-down is essential. It is compatible with all dry chemical powders and can be used in powder/foam twin agent systems.

Fire Performance & Foaming

The fire performance of this product has been measured and documented according to "International Approvals" stated in this document. The foaming properties are depending on equipment used and other variables such as water and ambient temperatures. Average expansion 9:1, average ¼ drainage time 03:30 minutes using UNI 86 test nozzle.

Has been fire tested against US Mil-F-24385F and comply at both full and half strength, and is QPL listed.

Proportioning

Fomtec AFFF 3% M can easily be proportioned at the correct dilution using conventional equipment such as:

- Inline inductors
- Balanced pressure, variable flow proportioning systems
- Bladder tanks
- Around the pump proportioning systems
- Water turbine driven foam proportioners
- Self inducing branch pipes and nozzles

The equipment should be designed to the foam type.

Compatibility

Contact one of the Fomtec sales team with questions.

Technical data

Appearance	Clear yellowish liquid
Specific gravity at 20°C	1,03 +/- 0.01 g/ml
Viscosity at 20°C	≤ 20 mPas
pH	6,5 – 8,5
Freezing point	-4°C
Recommended storage temperature	-4 – 55°C
Suspended sediment (v/v)	Less than 0,2%
Surface tension	≤ 19,0 mN/m

Environmental impact

Fomtec AFFF 3% M is formulated using raw materials specially selected for their fire performance and their environmental profile. Fomtec AFFF 3% M is biodegradable. The handling of spills of concentrate or foam solution should however be undertaken according to local regulations. Normally sewage systems can dispose foam solution based on this type of foam concentrate, but local sewage operators should be consulted in this respect. This product contains NO PFOS or PFOA. Fomtec AFFF 3% M is formulated with the latest fluorine technology and uses only "All-C6 fluorinated" compounds.

Full details will be found in the Material Safety Datasheet (MSDS).

Storage / Shelf life

Stored in original unbroken packaging the product will have a long shelf life. Shelf life in excess of 10 years will be found in temperate climates. As with all foams, shelf life will be dependent on storage temperatures and conditions. If the product is frozen during storage or transport, thawing will render the product completely usable.

Synthetic foam concentrates should only be stored in stainless steel or plastic containers. Since electrochemical corrosion can occur at joints between different metals when they are in contact with foam concentrate, only one type of metal should be used for pipelines, fittings, pumps, and tanks employed in the storage of foam concentrates. We recommend following our guidelines for storage and handling ensuring favourable storage conditions.

Packaging

We supply this product in 25 litre cans and 200 litre drums. We can also ship in 1000 litre containers or in bulk.

Litres per piece	Packaging	Part no
25 litres	Can	
200 litres	Drum	
1000 litres	Container	
Bulk	Special request	

International Approvals

- ICAO, performance Level C
- QPL Listed MIL-F-24385F



REPORT

issued by an Accredited Testing Laboratory

Contact person
Magnus Bobert
Fire Research
+46 10 516 51 90
magnus.bobert@sp.se

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Reference
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Dafo Fomtec AB
Box 683
135 26 Tyresö

Testing of foam concentrate according to ICAO-requirements, level C (1 appendix)

The department of Fire Research at SP Swedish National Testing and Research Institute has on your request performed tests of foam concentrate according to ICAO-requirements, Doc 9137-AN/898, Chapter 8.1.5, level C. The fire test, level C, was performed according to the revised ICAO Test Protocol dated July 2013.

Designation of foam concentrate:	AFFF 3% M
Type of foam concentrate:	AFFF
Samples:	IBC 1000 L. The sample has been send to SP from Dafo Fomtec AB. Batch No. 142190.
Manufactured by:	Dafo Fomtec AB
Date of arrival at SP:	May 23, 2014
Date of fire tests:	May 27, 2014
Date of chemical - physical tests:	June-July, 2014

Total results

The foam concentrate denoted AFFF 3% M fulfil the requirements stated in the ICAO-requirements, level C, when tested with 3% admixture as low expansion foam.

SP Technical Research Institute of Sweden Fire Research - Fire Dynamics

Performed by

Examined by

Magnus Bobert

Björn Sundström

Appendix

Test conditions and test results

SP Technical Research Institute of Sweden

Postal address
SP
Box 857
SE-501 15 BORÅS
Sweden

Office location
Västeråsen
Brinellgatan 4
SE-504 62 BORÅS

Phone / Fax / E-mail
+46 10 516 50 00
+46 33 13 55 02
info@sp.se

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Appendix 1

Test conditions and test results

Physical properties

The physical properties were measured by SP Chemistry, Materials and Surfaces.

According to the customer the Lowest Use Temperature (LUT) is -6 °C.

Results of the physical properties

Parameter	Results	Requirements
pH-value	7,4	6,0 – 9,5
Sediment, vol %	<0,1	< 0,25
Viscosity, 20 °C	4,0 cSt	-
Viscosity, -6 °C	10,8 cSt	< 200 cSt
Refractive index	1,368	-

Expansion and drainage of foam

Test conditions: Ambient temperature: 21 °C

Premix temperature: 20 °C

Parameter	Results
Expansion ratio	9,2
Drainage 25 %, min:s	5:03
Drainage 50 %, min:s	7:39

Comments to the results of expansion and drainage of foam

No requirements are specified in the standard. The results are judged to be normal for this type of foam concentrate.

Appendix 1

Extinguishing tests according to ICAO-requirements , level C

The fire test was conducted indoors in the fire hall of SP.

<i>Designation</i>	Unit	AFFF 3% M
Date of test	y-m-d	2014-05-27
Admixture	%	3
Type of water		Fresh water
Foam nozzle UNI86	L min ⁻¹	11,4
Fire tray	m ²	7,32
Application rate	L m ⁻² min ⁻¹	1,6
Air temp.	°C	20
Fuel temp.	°C	17
Water temp.	°C	18
Foam solution temp.	°C	18
Wind speed	m/s	< 1
<i>Extinction</i>		
Type of fuel		Jet A1
Preburn time	min	1
Start foam application	min:s	00:00
90 % control	min:s	00:49
99 % extinguished	min:s	01:21
Extinguished	min:s	01:29
Stop foam application	min:s	02:00
<i>Burnback</i>		
Waiting period	min	2
Start burnback	min:s	00:00
Sustained fire in the tray	min:s	08:48
Burnback, > 25%	min:s	19:27

Requirements for extinguishing time and burnback time

At the 60 seconds time, minute flames (flickers) visible between the foam blanket and the inner edge of the tray are acceptable:

- If they don't spread in a cumulative length exceeding 25% of the circumference of the inner edge of the tray and:
- They are totally extinguished during the second minute of foam application.

Time to burnback: ≥ 5 minutes for 25% of the surface

Comments to the fire test results

At 60 seconds minute flames (flickers) were visible between the foam blanket and the inner edge of the tray with a cumulative length of about 1 m. The minute flames (flickers) decreased and the flames were totally extinguished at 1:29. The requirements are judged to be fulfilled.