

TECHNICAL DATA SHEET

PROFILM (AFFF) Aqueous Film Forming Foam Synthetic based

AFFF - Aqueous Film Forming Foam concentrate
For use on Hydrocarbon fires - Low & Medium Expansion

Composition



- ✓ NO PFOS
- ✓ NO PFOA

This Formulation contains only telomer-based fluorosurfactants with a short chain (C6 or below) that cannot degrade in the environment into PFOA or other PFCA's.

IMPORTANT:

C6 telomer-based fluorosurfactants are NOT bio-accumulative or toxic to the environment.

PROFILM is a composition of fluorocarbon surfactants, active hydrocarbon surfactants, and corrosion inhibitors.

The special formulation of **PROFILM** yields a high foaming action, outstanding fluidity and excellent cooling, enabling very fast fire knock-down times.

Additionally, the short drainage time of the foam results in the formation of a floating aqueous film that provides excellent resistance to flammable vapour release and a longer burn-back resistance.

Principle of Operation



PROFILM is designed and recommended for use where human lives are at risk and very rapid-fire extinction and prevention of fire spread is required, such as at airports and on helipads.

It is also highly suited for use in sprinkler systems, as its film-forming properties maintain its extinguishing qualities even at low expansion ratios (3-5).

Induction Ratio



PROFILM is available in three standard versions:

- 6 % dilution: 6 L foam concentrate + 94 L water = 100 L foam solution
- 3 % dilution: 3 L foam concentrate + 97 L water = 100 L foam solution
- 1 % dilution: 1 L foam concentrate + 99 L water = 100 L foam solution

Method of Application



PROFILM is extremely resistant to hydrocarbon pollution and can be used in direct application (nozzle, monitor, sprinkler).

It is highly suitable for simultaneous use with powders in twin-agents or extinguishers.

Field of Application

PROFILM is primarily designed for:



Airports



Helipads



Fuel loading
platforms



Sprinkler systems

General Characteristics

PROFILM conforms to all national and international standards and particularly to European standards EN 1568-1 and 3.

PROFILM can be used with fresh and sea water.

PROFILM properties are not impaired in case of freezing. It recovers its initial properties as soon as it is defrosted.

Storage and Shelf-life



PROFILM has a long shelf life if stored properly in the original intact and unsealed packaging. Its shelf life may exceed 10 years if maintained correctly. As with all foam liquids, storage temperatures and conditions are important factors for optimal shelf life.

If the product becomes frozen during storage or transport, gentle thawing will render the product completely usable and without any impairment of its properties.

PROFILM, like other synthetic foam concentrates, is recommended to be stored in stainless steel or plastic containers. Furthermore, since electro-chemical corrosion can occur at joints and unions between different metal types when they are in contact with the foam liquid, it is recommended that any foam concentrate storage systems employ the same materials throughout for tanks, pipelines and fittings.

We recommend following our guidelines to ensure optimal storage conditions.

Physico-Chemical Characteristics

foam concentrate	u.m.	1%	3 & 6 %
density @ 20°C	kg/l	1.03 ± 0.02	1.03 ± 0.02
pH @ 20°C		6 - 9	6 - 8
viscosity @ 20°C	mm ² /s	≥ 2	≥ 2
pour point *	°C	≤ - 5	≤ - 5
undissolved solids	% V/V	≤ 0.2	≤ 0.2

* The product is also available in low temperature versions with pour points of -15°C and -20°C. Furthermore, the concentrations of 6 and 3 % can also be provided at -25°C & -30°C.

Typical Foam Properties

The foam properties of **PROFILM** vary depending on the performance characteristics of foaming equipment used and the operating conditions.

PROFILM tested in accordance with the EN 1568:3 gives the following typical properties:

Foam solution	1%	3 & 6 %
Expansion Ratio	≥ 6	≥ 7
25% drainage time	≥ 2'30"	≥ 2'30"