



## POLIFILM K 1 FLUOROSYNTHETIC FILM FORMING 1% (AFFF)

POLIFILM K 1 is a fluorosynthetic liquid foaming agent AFFF (“Aqueous Film Forming Foam”), based on surface- active hydrocarbons, fluorine surfactants and special stabilising compounds.

POLIFILM K 1 is miscible with fresh and sea water and is suitable for class A and B fires when used at low and medium expansion ratios. In particular, when dealing with fires of solid fuels (class A), POLIFILM K 1 increases wetting capability and water penetration.

The peculiarity of POLIFILM K 1 is the formation of a water film on the hydrocarbon surface (while normally hydrocarbons are less dense than water). This film, a result of surface tension between the water solution of POLIFILM K 1 and the fuel, creates an isolating barrier to both flammable vapours and oxygen in the atmosphere. This in turn permits the application of POLIFILM to prevent ignition of hydrocarbon gases and in emergency situations, or also during maintenance operations.

The marked spreading velocity of the aqueous film and its ability to re-coalesce after breakdown make POLIFILM K 1 a unique solution in the most difficult fire situations where a rapid and effective control of the flames is required to protect people and assets.

POLIFILM K 1 is therefore suitable for intervention in highly hazardous areas, e.g. marine platforms, heliports (where the intrinsic value of the assets is significant).

### Other characteristics

- Versatility: compatible with any foam generating system (sprinkler, low/medium/high expansion ratio)
- Extinguishing capability and low cost: fire suppression is 2-3 times faster than the that of proteinic foaming agents for the same flow rates.
- Health and environmental impact: POLIFILM K 1 is biodegradable, non-toxic and non-harmful.
- Stability and storage: POLIFILM K 1 is non-corrosive and stable and shows no risk of decomposition. The average life of this product is twice the life of a proteinic foaming agent and may be stored for several years if the storage conditions are respected.
- Compatibility: POLIFILM K 1 may be combined with extinguishing powder and, when used with a special powder in “Twin Agent” systems, represents the most rapid and effective solution available (ideal in airports for instance).
- Suitability for applications where maximum effectiveness and minimum size are required



<b>Product name</b>	<b>POLIFILM K 1</b>
Classification	Fluorosynthetic Film Forming (AFFF)
Type	Low temperature
Appearance	Amber-coloured Newtonian Liquid
Concentration (% v/v)	1
Freezing temperature (°C)	≤ -15
Viscosity + 20°C (mm <sup>2</sup> /s)	≤ 20
- 10 °C (mm <sup>2</sup> /s)	≤ 50
Density at 15°C (g/ml)	1.04 ± 0.02
pH at 20°C	8.0 ± 0.5
Sediments (%)	≤ 0.1
Compatibility with powders	Optimal
Minimum operating temp. (°C)	- 10
Max. storage temp. (°C)	+ 60 Continuous

### Foaming properties

As for any foaming agent, the foaming properties strongly depend on the efficiency of the equipment installed and the operating conditions.

When tested under the ISO 7203/UNI 9493/EN 1568 specifications, the product shows the following performance:

- Expansion ratio: ≥ 8
- Drainage time of 25% of the product: ≥ 2 min 30 s

### Storage

Polifilm K 1 is a stable product and, if stored in the original containers, has a shelf-life of (at least) ten years.

### Environmental compatibility

Polifilm K 1 is biodegradable. The concentrate and its solutions are normally disposed of in a biological treatment plant.

### Standard containers and product codes

<b>Container</b>	<b>Basket</b>	<b>Drum</b>	<b>Tank</b>
Nominal capacity (l)	30	220	1050
Size (mm)	375 X 284 X 397 H	581 D X 935 H	1200 X 1000 X 1155 H
Container tare mass (kg)	1.5	8.5	63
Material	High density Polyethylene High molecular weight	High density Polyethylene High molecular weight	High density Polyethylene Galvanised steel
Container approval	UN 3H1/Y1.8/250	UN 1H1/Y1.9/200	UN 31HA1/Y/(1)F
Net weight of the product (kg)	26	208	1040
Polifilm K 1 code number	1807110025	1807110200	1807111000



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