

POLIFILM KS 3 FLUOROSYNTHETIC FILM FORMING 3% (AFFF)

POLIFILM KS 3 is a fluorosynthetic liquid foaming agent AFFF ("Aqueos Film Forming Foam"), based on surface- active hydrocarbons, fluorine surfactants and special stabilising compounds.

POLIFILM KS 3 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 KS 3 increases wetting capability and water penetration.

The peculiarity of POLIFILM KS 3 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 KS 3 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 KS 3 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 KS 3 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 KS 3 is biodegradable, non-toxic and non-harmful.
- Stability and storage: POLIFILM KS 3 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 KS 3 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.







Product name	POLIFILM KS 3	
Classification	Fluorosynthetic Film Forming (AFFF)	
Type	Standard	
Appearance	Amber-coloured Newtonian Liquid	
Concentration (% v/v)	3	
Freezing temperature (°C)	≤ -3	
Viscosity $+ 20^{\circ}\text{C (mm}^2/\text{s)}$	≤ 10	
- 10 °C (mm ² /s)	≤ 10	
Density at 15°C (g/ml)	1.02 ± 0.02	
pH at 20°C	8.0 ± 0.5	
Sediments (%)	≤ 0.1	
Compatibility with powders	Optimal	
Minimum operating temp. (°C)	0	
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:

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

Storage

Polifilm KS 3 is a stable product and, if stored in the original containers, has a shelf-life of (at least) ten years.

Environmental compatibility

Polifilm KS 3 is biodegradable. The concentrate and its solutions are normally disposed of in a biological treatment plant.

Standard containers and product codes

Container	Basket	Drum	Tank
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 density Polyethylene	High density Polyethylene
	High molecular weight	High molecular weight	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
Protein K 6 code number	1807120025	1807120200	1807121000

