Inside Air Foam

IAF (Inside Air Foam) is a fire extinguishing foam concentrate based on surface active agents. A special combination of surfactants, stabilizers and antifreeze compounds provides an efficient fire extinguishing agent.

Properties

IAF is suitable for generating low, medium and high expansion foam used for extinguishing fires of class A + B, and – as a precaution – can also be used to suppress emissions of spilled liquids where small amounts of gas can escape. It has been specially formulated for use in Inside Air Foam Systems.
Small proportions of IAF reduce the surface tension of water considerably. Therefore, the product is an excellent wetting agent as well.
The flowable, stable foam extinguishes safely and forms a gas tight cover on the combustible surface and resists heat radiation, evaporation and wind. Consequently the risk of re-ignition is reduced.
IAF complies with applicable standards. The foam's resistance to smoke particles and high temperatures enable its use in inside air foam systems.

Application

IAF is used to generate of low, medium and high expansion foam in all commonly available equipment and systems for fighting fires of class A + B. When used as wetting agent, e.g. for extinguishing of poorly wettable material such as cotton, brown coal, pulverized coal etc. the induction rate starts from 0.5 %. The use of sea water, brackish water or treated industrial water does not affect the excellent effectiveness of IAF.
The low and medium expansion foam generated from IAF is used for fire fighting in the open as well as inside buildings and facilities and aboard ships. High expansion foam is used to preventively flood whole rooms or to displace flammable gas/air mixtures escaping from tanks, vaults, pipe trenches etc. Used with inside air foam systems high expansion foam generated from IAF is particularly resistant against smoke particles and heat.

Compatibility with other fire extinguishing foams

For immediate usage, IAF can be mixed with any other equivalent foam agents, independent of the mixing ratio.
When IAF is to be added to existing stocks of foam agents we recommend to have the quality of the available stock tested by our laboratory.

Compatibility with powder

IAF is designed for the combined use with foam compatible powders.

Storage

IAF can be stored for long periods of time in the sealed original containers, in corrosion resistant plastic or stainless steel tanks. High temperatures up to +50 °C do not affect the quality; neither does temporary freezing at temperatures below the specified frost resistance limit.

SPECIFICATION	
Recommended induction rate	low expansion foam 2.0 % medium expansion foam 2.0 % high expansion foam 2.0 %
Foam expansion	Depending on foam equipment, water pressure and induction rate low expansion foam up to 20times medium expansion foam ≥ 20 up to 200 times high expansion foam ≥ 200 up to 1000 times
Foam stability	50 % water drainage time depending on foam equipment and water pressure low expansion foam 20 - 35 minutes medium expansion foam 15 - 20 minutes high expansion foam 15 - 20 minutes
Density at 20°C	1.03 ± 0.02 kg/l
Frost resistance	-10°C
pH value	6.5 to 8.5
Sediment content	None
Viscosity	20°C ≤ 30 mm2/s 0°C ≤ 70 mm2/s -10°C ≤ 200 mm2/s
Environmental acceptability	IAF is physiologically harmless and easily biodegradable.
Special notes	IAF is not bad for the health, provided it is used for the intended purpose. Fire extinguishing exercises and tests may have to be coordinated with the local authorities. When persons are sprayed with foam, please bear in mind that they may not be able to breathe while covered with foam. For further information users are asked to refer to the safety data sheet.