

TECHNICAL DATA SHEET

PROFREE F3-AR (Alcohol Resistant Fluorine Free Foam)

All-Purpose Fluorine-Free Foam concentrate
Use on Hydrocarbon and Polar Solvents fires Low, Medium, High Expansion

Composition



PROFREE F3-AR foam concentrate is based on a new FLUORINE-FREE formulation of synergetic surfactants and foam stabilisers, resulting in a highly plastic and remarkably fluid foam, extremely resistant to the destructive effects of oxygenated substances (alcohols, ketones, ethers, etc.).

PROFREE F3-AR is totally free from fluorinated surfactants.

Principle of Operation



PROFREE F3-AR is designed for use at low, medium and high expansion ratios.

Due to its versatility, **PROFREE F3-AR** can be used for the extinguishing of both hydrocarbon and polar solvents fires

At low expansion, **PROFREE F3-AR** is suitable for fighting all types of fires regularly encountered by civil firefighting units.

When used in high-expansion generators, **PROFREE F3-AR** allows total flooding of large areas and is most suitable for the protection of hangars and chemical products storage warehouses.

Induction Ratio



PROFREE F3-AR is available in a single version, and can be used at concentration ratios from 3 to 6 %.

- 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

Method of Application



PROFREE F3-AR can be used with variety of generators:

- Low expansion (1 to 20:1)
- Medium expansion (20:1 to 200:1)
- High expansion (200:1 to 1000:1)

Fields of Application

The versatile alcohol-resistant **PROFREE 3F-AR** is primarily designed for:



Large capacity warehousing



Chemical product plants



Distilleries

General Characteristics

PROFREE F3-AR conforms to all national and international standards and particularly to European standards EN 1568-1, 2, 3 and 4.

PROFREE F3-AR can be used with fresh and sea water.

PROFREE F3-AR properties are not impaired in case of freezing. It recovers its initial properties as soon as it is defrosted.

Storage and Shelf-life



PROFREE F3-AR 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.

PROFREE F3-AR, 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.	3 %
density @ 20°C	kg/l	1.04 ± 0.02
pH @ 20°C		6,5 - 9
viscosity @ 20°C	cPs	1000 - 1500
Surface tension	mN/m	25 ± 2
pour point	°C	≤ - 10
undissolved solids	% V/V	≤ 0.2

Typical Foam Properties

The foam properties of **PROFREE F3-AR** vary depending on the performance characteristics of foaming equipment used and the operating conditions.

PROFREE F3-AR, tested in accordance with the EN 1568:3 and 4 gives the following typical properties:

Foam solution	Low Expansion	Medium Expansion	High Expansion
Expansion ratio	≥ 8	≥ 60 *	≥ 700 *
25% Drainage time	≥ 10'	≥ 7'	≥ 7'

* The value of the Expansion Ratio depends on the foam generator used.