



## **PROFLEX (FFFP)** Film Forming FluoroProtein foam concentrate *New version - C6 purity-compliant*

**FFFP (Film Forming FluoroProtein) foam concentrate**  
**For use on Hydrocarbon fires - Low & Medium Expansion**

### Composition



- ✓ NO PFOS
- ✓ NO PFOAS

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 also are not bioaccumulative or toxic to the environment.

**PROFLEX** is composed of a special mixture of hydrolysed proteins associated with fluorocarbon surfactants, giving the foam the distinguished property of forming a film on hydrocarbon's surface and at the same time maintaining a high burn back resistance.

### Principle of Operation



**PROFLEX** combines the most remarkable qualities of different type of foams: rapid fire knock down of film-forming type, resulting from their easy flow and quick spreading ability on fire, with the outstanding burn back resistance of fluoroprotein type on critical hydrocarbons fires of petroleum industry.

## Induction Ratio



**PROFLEX** is available in two standard versions:

- 6 % (6 L foam concentrate + 94 L water = 100 L foam solution)
- 3 % (3 L foam concentrate + 97 L water = 100 L foam solution)

## Method of Application

The foam liquid **PROFLEX**, owing to its film forming qualities, can be used either in direct application (nozzle or monitor), or in base injection with fixed installation, as well as in spray application with cooling nozzles and sprinklers.

## Fields of Application

The **PROFLEX** is mostly recommended for use in:



- Refineries



- Petroleum tank farms



- Petroleum Plants



- Loading Platforms



- Site yards and machinery rooms

## General Characteristics

**PROFLEX** is in conformity with all national and international standards and in particular with European standards EN 1568-1 and 3.

**PROFLEX** can be used with fresh and sea water.

**PROFLEX** properties do not change in case of frost. It recovers its initial properties as soon as it is defrosted.

**Storage and Shelf-life**



**PROFLEX** has a long shelf life if stored properly in the original unbroken packaging. Its shelf life may exceed 10 years if maintained correctly. As with all foam liquids, storage temperature and conditions are important factors for an optimal shelf life.

If the product is frozen during storage or transport, thawing will render the product completely usable.

**PROFLEX** is recommended to be stored away from important temperature variations and corrosive atmospheres.

**Physico-Chemical Characteristics**

foam concentrate	u.m.	3 & 6 %
density @ 20°C	kg/l	1.15 ± 0.02
pH @ 20°C		6 - 8
viscosity @ 20°C	mm <sup>2</sup> /s	≤ 12
pour point	°C	≤ - 15
undissolved solids	% V/V	≤ 0.2

**Typical Foam Properties**

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

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

foam solution %	3%	6%
Expansion Ratio	≥ 6	≥ 6.5
25% drainage time	≥ 2'30"	≥ 2'30"