

# ORION POLAR-TECH

## FF 3-3%

Alcohol Resistant Fluorine Free



### Description

Orion Polar-tech FF 3-3% is an alcohol resistant, fluorine free fire extinguishing foam concentrate. This foam concentrate makes sea water compatible foam and demonstrates extremely good fire fighting performance on hydrocarbons and polar solvents with both fresh sea water.

Orion Polar-tech FF 3-3% has very good foaming properties and can be used as medium expansion foam. On polar hydrocarbons, the polymer film formed effectively prevents destruction of the foam.

### Properties

Orion Polar-tech FF 3-3% is a pseudoplastic product which is stable against both polar (water-miscible) and non-polar hydrocarbons as well as mixtures of the two.

Friction loss chart is available on request

### Physical properties and technical data

Recommended Induction Rate	3% 3%	low expansion foam low expansion foam	non-polar solvents polar solvents
Expansion ratio	5 – 9	low expansion foam	
25% water drainage time	≥ 40 minutes	low expansion foam	
pH value @20°C	6.5 – 8.5		
Density @20°C	1.05 – 1.09 kg/l		
Sedimentation	free of sediment		
Minimum storage temperature	-15°C		
Viscosity	pseudoplastic liquid		
Environmental acceptability	Orion Polar-tech FF 3-3% is physiologically harmless and easily biodegradable. For further information please consult the material safety data sheet.		
Special notes	Orion Polar-tech FF 3-3% is not detrimental to health, provided it is used for the intended purpose. Fire extinguishing exercises and tests may have to be co-ordinated with the local authorities. When persons are sprayed with foam, please bear in mind that they will not be able to breathe while covered with foam.  For further information users are asked to refer to the material safety data sheet.		

ORION FIRE ENGINEERING PTY LIMITED

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## Application

Orion Polar-tech FF 3-3% is used with all commonly available low and medium expansion foam equipment and installations for fighting fires of class A + B. This concentrate is ideal for fighting fires of foam destroying products, e.g. alcohols, ketones, esters, etc. The induction rate is 3% for fires of non-polar and 6% for fires of polar, foam destroying hydrocarbons. A pump supported induction may be advisable. To achieve an optimal extinguishing success, fires of polar liquids should be extinguished by using gentle application methods, e.g. goose necks.

Use of sea water, brackish water or treated industrial water does not adversely affect the excellent efficiency of this concentrate.

Orion Polar-tech FF 3-3% is typically used in the petrochemical and chemical industry, on airports, onshore and offshore, in recycling plants and in locations where prevention of environmental contamination is paramount.

## Packaging

Orion Polar-tech FF 3-3% is available in a range of container:

20L pail	24kg
200L drum	216kg
1000L tote	1130kg

## Compatibility with other fire extinguishing foams

Orion Polar-tech FF 3-3% foams are compatible with all other readily expanded fire extinguishing foams.

## Compatibility with powder

Orion Polar-tech FF 3-3% is suitable for the combined use with foam compatible dry chemical powders.

## Compatibility with other foaming agents

Orion Polar-tech FF 3-3% can be mixed for immediate usage with other equivalent foaming agents, independent of the mixing ratio.

Orion Polar-tech FF 3-3% stocks must not be mixed with other products.

## Storage

Orion Polar-tech FF 3-3% can be stored for long periods of time in the sealed original containers and in corrosion resistant GRP 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 resistant limit.

## Approval

Orion Polar-tech FF 3-3% is approved as fire extinguishing agent for fires of class A and B including low and medium expansion foam applications for polar and non-polar solvent fires according to DIN EN 1568.

## EN-1568 Performance

Performance class	1A/1A	EN 1568-3
	1A/1A	EN 1568-4

EN 1568 Part 3 is for hydrocarbon fuels  
EN 1568Part 4 is for water soluble fuels

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