

METEOR P+ HOTFOAM™ 2% Foam Concentrate

Features

- 2% high expansion foam
- Especially designed for inside air applications
- EN1568, ISO7203 and IMO approved
- Tested against EN 13565-1 with HG-25 generators
- Suitable for use with fresh, salt or hard water
- Supplied ready to use in 20, 200 or 1000 litres packaging

Description

Meteor P+ HOTFOAM™ concentrate is a fully synthetic foam compound which has been especially developed to meet the requirements of the high expansion system using inside air unique technique. It is also suitable for any other application where the highest quality, top performing foam concentrate is required. It is intended for use as a 2% proportioned solution.

Meteor P+ concentrate forms a very stable foam when expanded by extremely hot and aggressive combustion gases where traditional high expansion foams/detergent foams will see their expansion often reduce by half or more affecting drastically foam performance of the designed high expansion system.

Performance

Mainly used for inside air foam systems in enclosed spaces. Hot foam is suitable for applications such as warehouses, flammable liquid storage protection and tunnel facilities as well as marine engine and pump rooms. Can also be used with traditional outside air high expansion systems. Meteor P+ forms high expansion foam using inside air, including combustion gases. Expansion ratios through the HotFoam generators are typically between 600:1 and 700:1. The foam fills the protected space, extinguishes the fire within it and prevents any re-ignition. It can be used with fresh, sea or brackish water.

METEOR P+ is measured against many international standards and specifications including EN1568 and IMO. The performance and the expansion has been verified against the new EN 13565 Part 1 Foam standard. Inside air HOTFOAM™ performances have been verified against many tests protocols including IMO and VROM. Tests include performances on temperatures up to 1000°C.

METEOR P+ has been successfully been tested on high expansion applications on either Solid Class A materials such as wood or plastics as well as conventional Class B hydrocarbon fuels such as gasoline, diesel fuel and jet fuels. High expansion extinguishment capabilities have also been verified on polar solvents (water miscible fuels) such as



Application

METEOR P+ can be used by most conventional foam proportioning equipment such as:

- PP, PPW pressure pump proportioning equipment
- MTB Bladder tank and related TP and TPW proportioners
- Fixed In-line venturi type MI inductor
- Around the pump type PI proportioners

Approvals

The fire performance of METEOR P+ has extended listings and approvals to comply with:

- EN 1568 : 2008 Part 2
- ISO 7203 Part 2
- IMO Msc 670
- IMO Msc Circ.1239
- Inside air test as per IMO Msc 668 and IMO Msc 728
- MED B
- EN13565 Part 1 with HG-25 generators
- VROM tested (2012)
- NT-Fire 051 (SP Environmental and Health properties)
- OKF approval (Hungary)



Storage and Shelf Life

METEOR P+ has an operational temperature range of +1°C to +45°C. Limited exposure to temperatures above +50°C does not affect the fire fighting performance.

When stored in the packaging supplied (polyethylene drums or cans) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of METEOR P+ concentrate is about 20-25 years. The factors affecting shelf life and stability for SKUM foam agents are discussed in detail in our Technical Bulletin 11A for storage recommendation.

Meteor P+ foam concentrate can withstand extreme cold conditions without any loss of performance. If the concentrate is frozen to a solid or semi-solid due to transportation or other reasons, it can be heated (up to max 49°C) and thawed back to original specifications. Stirring the heated compound is recommended to safely speed up the thawing process.

Safety and Handling

See our corresponding "Material Safety data sheet".

Miscibility

Meteor P+ is successfully tested on miscibility with the previous generations Meteor concentrates i.e. Meteor V and Meteor P.

Materials of Construction Compatibility

Tests have been performed with METEOR P+ Concentrate verifying its compatibility with various storage tank materials such as Coated carbon steel tanks, GRP or other plastics, Stainless Steel, Bladder tanks (rubber bladders).

Please refer to our Technical Bulletin 13A which addresses acceptable materials of construction for use with SKUM foam concentrates or e-mail at: info@skum.com

Environmental Information

Parameter	Concentrate	2% solution
■ METEOR P+		
■ Total organic carbon (TOC)	53250 [mg/ltr]	53250 [mg/ltr]
■ Chemical oxygen demand (COD)	27000 [mg/ltr]	5000 [mg/ltr]
■ Biodegradability (BOD5/COD)	51 [%]	51 [%]

Tests have been performed with METEOR P+ Concentrate by SP according to NT-Fire 051 protocol verifying toxic hazard to life in relation to the environment using EC Directives 67/548/EEC, 76/464/EEC and 88/379/EEC with respect of the eco-toxicological properties and safety in the work environment.

METEOR P+ does not contain any fluorosurfactant and is therefore considered as a fluorine free foam.

Quality Assurance

METEOR P+ as with all TYCO Products – is subject to very stringent quality controls throughout all stages of production, from incoming raw to the complete product and is manufactured in an ISO 9001:2008 controlled facility. Quality assurance is therefore guaranteed.

Typical Properties at 20°C

■ METEOR P+	HI-EX 2%
■ Fire Classes	A and B
■ Admixing ratio	2 [% Vol.]
■ Shape and colour	Pale yellow clear liquid
■ Expansion	Low, Medium, High
■ Density (20°C)	1,03 ± 0.01 [g/ml]
■ pH (concentrate, 20°C)	7.0 ± 0.5
■ Viscosity @ 20°C	25.0 ± 5 [mm ² /s]
■ Viscosity @ 5°C	51.0 ± 5 [mm ² /s]
■ Sediment (EN 1568)	≤ 0,1 [%]
■ Expansion Ratio (EN 1568-3)	≥ 9.0
■ Drain Time 25%, (20°C, EN 1568-3)	≥ 6:00 [min:s]
■ Drain Time 50%, (20°C, EN 1568-3)	≥ 12:00 [min:s]
■ Pour Point*	≤ -2 [°C]
■ Freezing Point	≤ -7 [°C]
■ Recommended storage/ Usage temperature	+1 to +45 [°C]

*The product could become cloudy below 2°C but performance is not affected.

Ordering Information

METEOR P+ can be supplied in cans, drums and IBC totes.

Part No.	Description
■ 182316523	20 Litre can
■ 182316537	200 Litre drum
■ 182316544	1000 Litre tote