



STHAMEX®-Performance 1% F-20 #9148



SYNTHETIC FOAM CONCENTRATE FOR FIRE CLASSES A + B

STHAMEX®-Performance 1% F-20 is a new synthetic firefighting foam agent, low viscous and newtonian, for use with fresh-and sea water as low-, medium- and high expansion foam.

STHAMEX®-Performance 1% F-20 is easily and completely biodegradable and free of organic fluorine compounds*¹, preservatives and silicone compounds. Due to the increased freeze protection, STHAMEX®-Performance 1% F-20 can be stored and used outdoors at temperatures well below 0°C.

The low proportioning rate of only 0,5-1% offers enormous logistical advantages.

Performance

STHAMEX®-Performance 1% F-20 is specifically designed for use with mobile foam generating equipment for Class A fires and Class B (non-polar) pool/spill fires, as well as for non-foam application as a wetting agent and for use as a CAFS*² foam.

It foams very well hence is excellent for the production of low -, medium -, and high expansion foam. Low expansion foam made from STHAMEX®-Performance 1% F-20 provides a particularly fine-bubbled, compact and stable foam blanket that sticks well to solid surfaces cooling them and insulating them very effectively against radiant heat. The foam blanket slowly and evenly releases foam solution to the substrate and is thus able to very efficiently wet and penetrate deeply into solid (e.g. motor vehicles, Li-ion batteries, recycling materials, etc.) and ember-forming (e.g. wood, paper, tires, ...) materials.

Medium expansion foam produced from solutions of STHAMEX®-Performance 1% F-20 has a homogeneous bubble structure, flows well and is stable. With suitable high-expansion foam generators, STHAMEX®-Performance 1% F-20 produces a very even high-expansion foam with expansion rates of up to 1000:1. With low expansion foam allows to flood large rooms completely within a short time, and displace flammable gas-air mixtures preventively from containers, rooms, pipe trenches and e.g. engine rooms on ships.

The robust formulation of STHAMEX®-Performance 1% F-20 grants a high level of redundancy in performance and stability against influences typical for situations of engagement.

Technical Specification

Appearance colourless/yellow

Fire Class/es A + B

Lowest Use Temperature -20 [°C]

Max. Storage Temperature max. +50 [°C]

Specific Gravity (20°C) 1,050 ± 0,02 [g/ml]

pH value (20°C) 6,5 - 8,5

Viscosity (20°C) < 20 [mm²/sec]

Sedimentation Sediment Free

Foam Properties acc. to EN1568 at 20°C

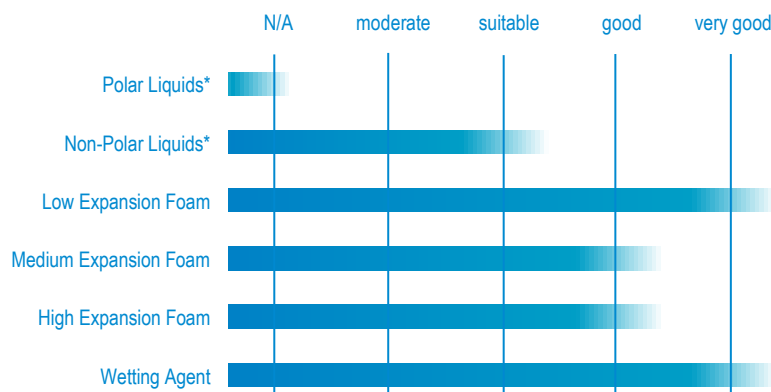
Induction Rate 0,5% - 1%

Expansion Rate 7 - 11, 50 - 90, 700 - 1000

25% Drainage Time 1 - 5, 2 - 6, 2 - 5 [min]

50% Drainage Time 3 - 7, 7 - 11, 4 - 6 [min]

Expansion Types Low -, Medium -, High Exp. Foam



*as mentioned in the respective test standard or in the text

Performance Tests

DIN EN 1568 EN 1568:2018 - Approval-No.: KB 139/23
Part 3 (Heptane): IIID/IIID
Part 1: Medium Expansion Foam --- Part 2: High Expansion Foam

ICAO Airport Services Manual
Low Expansion Foam --- Level B

Special Fire Test
Level B on Kerosene following ICAO Airport Services Manual using Sea Water

¹ We define fluorine-free as products that are manufactured without the intentional addition of fluoroorganic compounds for the purpose of improving performance in such a way that, according to currently commercially available analysis of PFAS in firefighting foam concentrates, they do not contain any quantity of fluoroorganic substances in excess of the ubiquitous regional background contamination (e.g. in the drinking water used for production).

² CAFS: Compressed Air Foam System.

Application

STHAMEX®-Performance 1% F-20 is specifically designed for use with mobile foam generating equipment for Class A fires and Class B (non-polar) pool/spill fires, as well as for non-foam application as a wetting agent and for use as a CAFS*2 foam.

STHAMEX®-Performance 1% F-20 is suitable for all qualities of water (fresh water, industrial water free of foam-destroying additives, sea water and brackish water). The proportioning rate to the fire water is 0,5-1%. The low viscosity allows the use of commercially available proportioners and dosing equipment down to the lowest application temperature of

The firefighting foam agent significantly reduces the surface tension of water and for this reason is very well suited as a wetting agent for use on Class A fires. When used as a non-foaming wetting agent to extinguish hard-to-wet materials, the proportioning rate can be reduced to about one-tenth of the normal proportioning rate to fire water. For use as wetting agent standard branchpipes can be used.

For extinguishing operations in the presence of or on electrical equipment, relevant standards for protection against damage by electricity (e.g. in Germany DIN/VDE-0132) must be followed.

Compatibility

STHAMEX®-Performance 1% F-20 must not be mixed as a concentrate with other firefighting foam concentrates. When mixing different firefighting foam agents, it must be considered that the resulting mixture is a new chemical product which is not tested as firefighting foam agent and also must be re-evaluated and labelled according to hazardous materials regulations.

The foam produced from *STHAMEX®-Performance 1% F-20* is fully compatible with all other ready expanded firefighting foams.

Storage & Shelf Life

When synthetic firefighting foam agents and concentrates are stored, only certain materials in only certain combinations are suitable for permanent media contact. Our detailed Technical Information Nos. 014 (Storage of synthetic firefighting foam concentrates) and 009 (Material suitability polymers) provide information on this and other important aspects for the optimum storage of our products. Please do not hesitate to contact us for further information. On short-term contact and subsequent thorough cleaning with water, # or a premix solution made from it will not corrode metals such as copper, aluminium, brass, admiralty brass or bronze.

Elevated temperatures up to a maximum of +50°C or temporary freezing at temperatures below the specified frost resistance limit do not affect this high-quality product adversely (see our further Technical Information on the storage of firefighting foam agents). Temperature should not exceed +50°C.

Before filling storage tanks, these tanks and all supply lines, pumps, valves or other parts carrying media must be thoroughly cleaned, free of grease and free of residues from a previous filling. Before filling up stocks of our *STHAMEX®-Performance 1% F-20* we recommend to have a quality test of the stock to be filled up carried out in our laboratory.

If stored according to our storage recommendations, a shelf life of well over ten years is

possible.

Environment

STHAMEX®-Performance 1% F-20 is easily and completely biodegradable and free of organic fluorine compounds*1, preservatives and silicone compounds.

After use, all parts which were in contact to *STHAMEX®-Performance 1% F-20* must be thoroughly rinsed with water and cleaned to prevent any product buildup. Dried-in adhesions may require longer time soaking for removal.

Unused product (concentrate) must not be released into the environment. Disposal must be carried out in consultation with local authorities and specialised waste treatment companies.

Please also note further information in our safety data sheet!

Transport

STHAMEX®-Performance 1% F-20 is available in the following packaging units: PE-canister (20 ltr, 25 ltr and 60 ltr), PE-canister according to DIN 14452 (20 ltr); PE-drum (200 ltr), PE-IBC (600 ltr und 1.000 ltr) or bulk.

Please contact us for special packing sizes.



For further Documentation please scan the Qr code or see <http://sthamer.de/qr/9148>



Safety Advice: Please bear in mind that foam solutions are electroconductive liquids. The use in proximity to electrical/electronic equipment can require specific safety measures.



Safety Advice: Please see our Technical Information regarding "Mixing of Foam Concentrates" for further information

Disclaimer:

Any information in this product data sheet bases upon our best knowledge and expertise at the time of this issue. We reserve the right to change the content of this document or adopt to newer information. Please ask for the most recent revision of this data sheet.

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