

# FOMTEC LS eMax

## Description

The high expansion extinguishing mechanism enables oxygen depletion in a three dimensional fire by totally engulfing the flammable material inside enclosed areas. Additionally, the high content of water in the foam will cool the flammable materials.

## Application

Fomtec Enviro eMax is intended for use on class B hydrocarbon fuels such as oil, diesel, gasoline and aviation fuels, as well as polar fuels like acetone, isopropyl alcohol etc. Fomtec Enviro eMax can be used with all kinds on low, medium and high expansion devices.

Fomtec Enviro eMax is also effective against class A fires such as wood, paper, textiles etc at 0.5-1% proportioning. Typical applications are high expansion foam systems in warehouses, process areas, aircraft hangars or other applications where three-dimensional fire can occur.

Suitable for mobile firefighting by use of low expansion aspirating foam discharge devices such as foam branchpipes and monitors. Or in systems designed for use with the product based on recommended minimum applications rates, application duration and discharge devices.

## Fire Performance & Foaming

The fire performance of this product has been measured and documented according to "International Approvals" stated in this document. The foaming properties are depending on equipment used and other variables such as water and ambient temperatures. Average low expansion 8:1, average ¼ drainage time 9:30 minutes using UNI 86 test nozzle.

## Equipment

Fomtec Enviro eMax can easily be proportioned at the correct dilution using conventional proportioning equipment. The equipment should be designed to the foam type. Fomtec Enviro eMax can be used with low, medium and high expansion foam generators.

## Compatibility

Fomtec Enviro eMax is compatible with potable water. It is compatible with foam compatible dry chemical powders as well as other expanded foam types. For mixability with other foam concentrates and material compatibility, please contact DK Systems.

Typical Data	
<b>Appearance</b>	Clear yellowish liquid
<b>Specific gravity at 20°C</b>	1,04 ± 0,01 g/ml
<b>Viscosity at 20°C spindle #1, 60 rpm</b>	≤ 2500 mPa·s
<b>pH</b>	6,5 - 8,5
<b>Freezing point</b>	-8°C
<b>Recommended storage temperature</b>	0°C - 55°C
<b>Suspended sediment (v/v)</b>	< 0,2%

## Environmental

Fomtec Enviro eMax is formulated using raw materials specially selected for their fire performance and their environmental profile. The product is totally free from fluorinated surfactants and polymers and other organohalogens, and therefore it does not contain any PFAS. The handling of spills of concentrate or foam solutions should however be undertaken according to local regulations. Normally sewage systems can dispose foam solution based on this type of foam concentrate, but local sewage operators should be consulted. Full details will be found in the Material Safety Datasheet (MSDS). For more detailed information please consult DK Systems.

## Storage / Shelf life

Stored in original unbroken packaging the product will have a long shelf life. Shelf life in excess of 10 years will be found in temperate climates. As with all foams, shelf life will be dependent on storage temperatures and conditions.

## Packaging

We supply this product in 25 litre and 5 US gallon cans, 200 litre and 55 US gallon drums, 1000 litre and 265 US gallon IBC containers. Larger bulk supply is available against special request.

## International Approvals

- EN 1568 part 2, 3, 4 Pass
- Tested to CNPP T12
- VdS tested with GH250, GH400 & GH800 high expansion generators

## FOAM CONCENTRATE

### Inspection/Testing/Maintenance

All foam concentrates should be tested annually. Testing should be carried out by an approved laboratory certified to assess firefighting foam quality according to relevant standards, such as NFPA 11, EN 13565-2, EN 1568 and IMO MSC.1Circ. 1312.

Storage containers should be inspected and reevaluated for the suitability of the storage location regarding temperature fluctuations (temperature should be as stable as possible). Exposure to direct sunlight should be avoided.

### Viscosity data - Flow curves

The viscosity flow curves are determined by Brookfield RST rheometer from low to high shear rates. The viscosity curves below are determined by calculating the average value of at least 8 different measurements and add a safety margin of three standard deviations to the average. The viscosity curves are determined for 20°C and 5°C. In the table below the kinematic viscosity ( $\text{mm}^2/\text{s}$ ) is calculated as dynamic viscosity ( $\text{mPa}\cdot\text{s}$ ) divided by the specific gravity of the concentrate.

Shear Rate ( $\text{s}^{-1}$ )	Dynamic Viscosity ( $\text{mPa}\cdot\text{s}$ ) 20°C	Dynamic Viscosity ( $\text{mPa}\cdot\text{s}$ ) 5°C	Kinematic Viscosity ( $\text{mm}^2/\text{s}$ ) 20°C	Kinematic Viscosity ( $\text{mm}^2/\text{s}$ ) 5°C
10.7	2719	2766	2640	2686
21.5	1482	1535	1439	1491
53.7	684	717	664	696
107.4	393	418	382	406
214.8	236	253	229	245
375.0	157	174	152	169
537.0	123	138	120	134
1074.0	78	91	76	89
1611.0	62	72	60	70
2148.0	52	61	51	60

### Enviro by Fomtec

The Fomtec Enviro range comprises an extensive range of non-PFAS based foams suitable for use Emergency Response missions and System applications. Enviro foam concentrates are available for class A, class B fire hazards and products are available for low, medium, and high expansion discharge devices.

