# FOMTEC® ARC 1x3 Ultra

Alcohol Resistant AFFF Foam Concentrate

## Fomtec©

# ARC 1x3 Ultra


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Fomtec ARC 1x3 Ultra is an alcohol resistant aqueous film forming foam concentrate (AFFF-ARC) consisting of a blend of fluorocarbon-, hydrocarbon surfactants and polymers, various solvents and stabilisers. All Fomtec AFFF-ARC foam concentrates are formulated with 100% C6 Pure fluoro-surfactants and fluoro-polymers. On hydrocarbon fuels, Fomtec ARC 1x3 Ultra utilises the unique film forming effect to cut off oxygen supply to the fire and the oleophobic properties of the foam enables a stable foam blanket to prevent reignition of the fire. With polar fuels, a polymeric membrane is formed that suppresses vapours and allows the foam blanket to survive on the water miscible fuel surface.

- Short chain C6 Pure fluorochemistry
- UL Listed
- Freeze protected
- Suitable for Class A and B fires
- Low and medium expansion foam





**Performance Trust Sustainability** | Dafo Fomtec AB | P.O. Box 683 | SE-135 26 Tyresö | Sweden | P: +46 8 506 405 66 | F: +46 8 506 405 29 | www.fomtec.com

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## DESCRIPTION

Fomtec ARC 1x3 Ultra should be used at a 1% proportioning ratio (1 part concentrate and 99 parts of water) for hydrocarbon fuels and 3% ratio (3 parts concentrate and 97 parts water) on polar solvent fuels. May be used with all water types.
For use on Class A type fires, a proportioning ratio of 0,3% to 1% is recommended depending on application and discharge device.

## APPLICATION

Fomtec ARC 1x3 Ultra is tested according to UL 162 7th Edition on class B hydrocarbon fuel fires such as oil and diesel as well as polar solvent fires such as IPA and acetone. Can also be used on class A fires such as wood, paper, textiles etc.

Typical applications include high risk installations such as:
- Storage tanks, process areas and loading racks
- Waste and recycling industry
- Fire rescue departments

## FIRE PERFORMANCE & FOAMING

The fire performance of this product has been tested and documented according to the "International Approvals" stated in this document. The use of the product should follow design guidelines appropriate to the type of system and application. The foaming properties are depending on equipment used and other variables such as water and ambient temperatures. Average expansion 5:1 (1%) & 8:1 (3%), average 25% drainage time 3:20 (1%) & 15:00 (3%) minutes using UNI 86 test nozzle according to EN 1568-3.

## EQUIPMENT

Fomtec ARC 1x3 Ultra can easily be proportioned at the correct ratio using conventional proportioning equipment. The equipment should be designed to the foam type.
Fomtec ARC 1x3 Ultra is suitable for use with Type II (gentle application) and Type III (direct application) discharge devices as well as sprinklers according to EN 13565-2. It can be used in low and medium expansion applications with all conventional aspirating and non-aspirating discharge devices.
Fomtec ARC 1x3 Ultra is also suitable for use in CAF-systems.

## COMPATIBILITY

Fomtec ARC 1x3 Ultra can be used together with foam compatible powders and other expanded foams.
It is suitable for all water types.
For mixing with other foam concentrates, contact Fomtec for advise and guidance. For material compatibility please refer to Fomtec Technical Advices FTA 20 addressing the topic.

| TYPICAL DATA | |
|---|---|
| Appearance | Pale yellow liquid |
| Specific gravity at 20°C | 1,030 ± 0,020 g/ml |
| Viscosity | Pseudoplastic* |
| pH | 6,1 – 7,1 |
| Freezing point | ±0°C |
| Recommended storage temperature | 1°C - 55°C |
| UL Minimum storage temperature | 1,7 °C |
| Suspended sediment (v/v) | < 0,1% |

*) *See detailed viscosity data below*

## ENVIRONMENTAL

Fomtec ARC 1x3 Ultra is formulated using raw materials specially selected for their fire performance and their environmental profile. All raw materials are registered in the European REACH-database. Fomtec ARC 1x3 Ultra is non-toxic, biodegradable and each individual component is fully tested and documented.
Fomtec only uses C6 Pure fluoro-surfactants and polymers in our AFFF-ARC formulations. Our film forming (AFFF-ARC) products contains no PFOS or PFOA in accordance with US EPA Stewardship Programme 2010/15 and EU Directive 2017/1000. More details can be found in the Material Safety Datasheet (MSDS).
The disposal of spills of foam concentrate or premix foam solution should be made in accordance with local regulations. For more detailed information please consult Fomtec Technical Advices FTA 40.

## 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 foam concentrates, shelf life will be dependent on storage temperatures and conditions. For storage recommendations and material compatibility please refer to Fomtec Technical Advices FTA 10 addressing the topic.

## 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.
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.



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## PACKAGING

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

| Volume per piece | Packaging | Part no | Approx. shipping weight* | Dimensions (mm) L x W x H |
|---|---|---|---|---|
| 25 ltr | Can | 12-1322-01 | 27,0 kg | 295 x 260 x441 |
| 200 ltr | Drum | 12-1322-02 | 238,0 kg | 581x 581 x 935 |
| 1000 ltr | Container | 12-1322-04 | 1090 kg | 1200 x1000 x1150 |
| 5 US gal. | Can | 12-1322-XX | 20,5 kg | 295 x 260 x 441 |
| 55 US gal. | Drum | 12-1322-XX | 248,0 kg | 581 x 581 x 935 |
| 265 US gal. | Container | 12-1322-XX | 1095 kg | 1200 x1000 x1150 |
| Bulk | Special request | 12-1322-XX | | |

** including packaging.*

## INTERNATIONAL APPROVALS

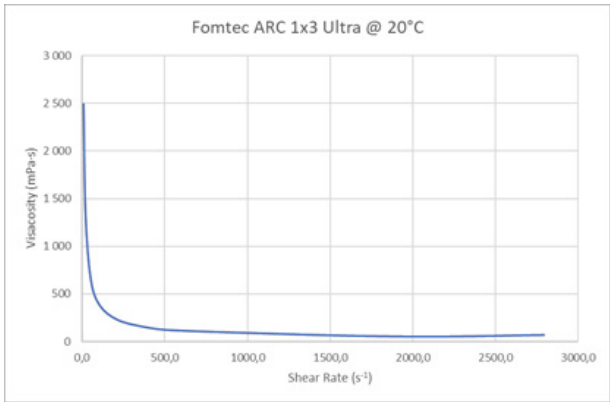
- UL Listed according to UL 162 7th Edition
- EN 1568 part 3
  *Class IB Fresh water/Class IB Sea water*
- EN 1568 part 4
  *Class IA Fresh water/Class IA Sea water*

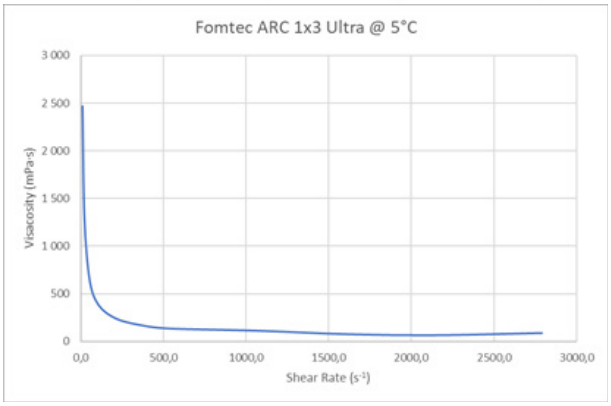
- Lastfire Good/Good/Good

## 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 (mm²/s) is calculated as dynamic viscosity (mPa·s) divided by the specific gravity of the concentrate.

| Shear Rate (s-1) | Dynamic Viscosity (mPa·s) 20°C | Dynamic Viscosity mPa·s) 5°C | Kinematic Viscosity (mm²/s) 20°C | Kinematic Viscosity (mm²/s) 5°C |
|---|---|---|---|---|
| 10.7 | 2492 | 2472 | 2420 | 2400 |
| 21.5 | 1364 | 1318 | 1324 | 1280 |
| 53.7 | 654 | 642 | 635 | 623 |
| 107.4 | 381 | 382 | 370 | 371 |
| 214.8 | 229 | 238 | 222 | 232 |
| 375.0 | 154 | 167 | 150 | 162 |
| 537.0 | 120 | 135 | 117 | 131 |
| 1074.0 | 87 | 112 | 85 | 109 |
| 1611.0 | 62 | 76 | 60 | 74 |
| 2148.0 | 53 | 65 | 51 | 64 |
| 2792.2 | 69 | 88 | 67 | 85 |







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