

3x3% ABERDEEN FOAM AR-F3



Alcohol-Resistant Fluorine Free Fire Fighting Foam Concentrate



An EN1568 pt 2, 3 & 4 certified Fluorine Free (F3) Fire Fighting Foam concentrate for extinguishing and securing both hydrocarbon and polar solvent liquid fires.

Aberdeen Foam 3x3% AR-F3 is a low viscosity newtonian Fluorine Free Foam. Designed for minimal environmental impact to quickly extinguish and secure:

- Class B hydrocarbon fires of liquids such as crude oil, gasoline, kerosene and fuel oil.
- Polar solvents and water miscible liquids such as alcohols, ketones, aldehydes and ethers.

Formulated for use with fresh, sea or brackish water and fully biodegradable - up to **98% after 7 days** and **100% after 28 days**.

Can also combat Class A fires.

HOW IT WORKS

Aberdeen Foam 3x3% AR-F3 effectively extinguishes and secures liquid hydrocarbon fires by cooling the fuel's surface, creating a stable blanket to suppress the release of flammable vapours and, in fires involving polar solvents, forming an insoluble polymer membrane.

**FLUORINE
FREE**

**EN 1568
Part 3: 2018**

**EN 1568
Part 4: 2018**

**EN 1568
Part 2: 2018**

**IMO
MSC.1/CIRC 1312**

**FM 5130
Clause 4.1: 2014**

**EU 2019/1021
COMPLIANT**

PROPORTIONING INFORMATION

- 3 parts foam concentrate to 97 parts water - hydrocarbon fires
- 3 parts foam concentrate to 97 parts water - polar solvent fires

FIRE PERFORMANCE ACCREDITATIONS

Aberdeen Foam 3x3% AR-F3 concentrate meets the requirements of:

- EN 1568: 2018 Part 3 - Class IB in fresh water and seawater
- EN 1568: 2018 Part 4 - Class IB in fresh water and acetone
- EN 1568: 2018 Part 2 • IMO MSC.1/Circ.1312: 2009
- FM 5130: 2014 Clause 4.1 - acetone and isopropanol

PHYSICAL PROPERTIES

| | |
|--|--------------|
| • Appearance | Amber liquid |
| • Specific gravity | 1.060 |
| • pH @ 20°C | 8.0 |
| • Viscosity @ 20°C / 375s ⁻¹ (mPas) | 80-100 |
| • Viscosity @ 20°C / 75s ⁻¹ (mPas) | 270-310 |
| • Surface tension @ 20°C (mN/m) | < 35 |
| • Freezing point (°C) | ≤ -4 |
| • Lowest use temp. (°C) | -7 |
| • Expansion* | ≥ 6.5 |
| • 25% drainage (minutes) | ≥ 3.5 |
| • Max. storage temp. (°C) | 50 |
| • Min. storage temp. (°C) | -7 |
| • Freeze/thaw effect | None |

* Foam quality will depend on the foam equipment used and the operating conditions. The above are tested in accordance with UK Defence Standard 42-40.

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FOAMING PROPERTIES

Foam expansion properties will vary depending on several factors including:

- Using salt or fresh water
- Water hardness
- Equipment characteristics
- Equipment flow rate

For example, aspirating devices will produce typical expansion ratios of between 6:1 and 10:1 and non-aspirating devices between 2:1 and 4:1.

Always check your equipment's operation manual for guidance.

APPLICATIONS

Aberdeen Foam 3x3% AR-F3 concentrate provides quality protection wherever hydrocarbons and / or polar solvents present a fire risk:

- Petrochemical refining, processing and storage facilities
- Marine terminals, power stations and road / rail loading racks
- Rapid Intervention Vehicles and aircraft hangar systems

Produced AR-F3 foams can also be used as wetting agents for combating Class A fires (i.e. tyres, paper, wood) and for providing a vapour suppression blanket on hydrocarbon spills.

PROPORTIONING EQUIPMENT

Aberdeen Foam 3x3% AR-F3 concentrate is readily proportioned with the following equipment:

- In-line inductors (fixed or portable)
- Balanced pressure variable flow proportioners
- Around the pump proportioners
- Bladder tank Balanced Pressure proportioning skid
- Handline, aspirating nozzles with fixed inductor pickup tube

DISCHARGE EQUIPMENT

Aberdeen Foam 3x3% AR-F3 concentrate is suitable for use with:

- Foam chambers
- Aspirating and non-aspirating sprinklers or spray nozzles
- Water fog nozzles for handlines and monitors
- Foam makers for use with either Floating Roof or Bund Protection systems

DISPOSAL

Produced Aberdeen Foam 3x3% AR-F3 can be safely disposed of in biological waste water treatment systems.

ENVIRONMENTAL IMPACT

- Non-persistent in the environment.
- Fluorosurfactant free.
- Fully biodegradable (100% at 28 days).
- Meets EU2019/1021 - complies with EU and UK PFOA restrictions.
- Not particularly toxic to microbial populations normally found in treatment plants. Compatible with the treatment plant's flora.
- Anti-foam agents may be used to reduce foam in in waste streams.

STORAGE AND SHELF LIFE

Best stored as supplied in original, unopened containers.

Suitable for storage in containers and tanks manufactured from:

- Stainless steel (Type 304L or 316L)
- High density cross-linked polyethylene
- FRP (vinyl ester epoxy resin only)
- Carbon steel "black" pipe
- Brass compounds
- Concentrate must **not** be stored or come in contact with galvanised tanks, pipes or fittings

If kept in the original manufacturer's supplied container and stored between -7°C and 50°C a shelf life of at least 20 years can be expected.

To prolong the shelf life of any foam concentrate, do not expose to temperature extremes and prevent contamination from foreign materials. If product is frozen, thawing will not effect performance. Mixing after freeze/thaw is recommended.

COMPATIBILITY

As recommended by NFPA 11: 2021, we would advise that if mixing foam concentrates from different manufacturers a compatibility study is carried out beforehand.

For further information or advice on compatibility testing, please contact Oil Technics Limited.

INSPECTION AND TESTING

As recommended by NFPA 11: 2021 and BS EN 13565-2: 2018, Aberdeen Foam foam concentrates should be inspected and tested at least annually as part of your fire fighting foam maintenance programme.

Oil Technics Limited offers a worldwide foam testing service and inhouse foam testing training. For further details, please contact us or visit our website: foamtesting.com

TECHNICAL SERVICES AND SALES SUPPORT

For our UK customers, Aberdeen Foam is available 24/7 via our 24 hour emergency call out service: +44 (0) 1561 361515.

PACK SPECIFICATIONS

| Capacity | 20L | 25L | 200L | 1000L | 2700L Bulk tank |
|--------------------|------------------|------------------|--------------|-----------------|-----------------|
| Dimensions (cm) | 40 x 29.5 x 24.5 | 47 x 29.5 x 24.5 | 92 x 58 x 58 | 102 x 100 x 116 | 215 x 185 x 213 |
| Empty weight (kg) | 0.8 | 0.9 | 8 | 60 | 2000 |
| Filled weight (kg) | 22.2 | 27.6 | 222 | 1130 | 3890 |

These measurements are for reference purposes only and are intended as guidelines only. Oil Technics Ltd reserve the right to modify any specification at any time and without prior notice.



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FM 696382 EMS 696323



SILVER
SUPPLIER NO. 00057128

