

OFB CAFS Overview



Compressed Air Foam Systems, CAFS, are revolutionizing the way people fight fires. OFB have harnessed innovative engineering technology to produce the highest volume fire fighting product on the market. CAFS systems utilize the OFB Firefighting Chemicals to deliver a higher volume, expansive, biodegradable fire extinguishing foam. Combined with the high quality engineering of the CAFS, this product exceeds expectations.

CAFS facts:

- 1 Litre H₂O = 30 Litres of Foam
- Refillable Tanks
- Non-Toxic
- Reduces Core Fire Temperature
- Use Fresh, Salt or Brackish Water
- Biodegradable
- Non-Corrosive
- Reduce Hydro-Carbon Emissions

CAFS can extinguish:

- Magnesium Fires
- Petroleum Fires
- Hydro-Carbon Fires
- Oil Fires



OFB has developed its own firefighting chemical for use in our CAFS systems. PYROCOOL, a chemical also used in OFB CAFS, was awarded the prestigious United States of America Presidential Green Award; this environmentally friendly product facilitates the unprecedented fire extinguishing results delivered by CAFS.

OFFICIAL TEST OF COMPRESSED AIR FOAM SYSTEMS

The Last Fire Regime concentrates predominantly on setting standards for foam chemicals, and is the only institution that tests products at various locations in the world, under their direct strict supervision and set standards. Other institutions such as the National Fire Prevention Association (NFPA), UL (USA and Canada), EN (European Union, and Factory Mutual (USA and Canada), only test products in their established and purpose built facilities.

With the banning of PFOS and PFAS surfactants, and thereby the use of AFFF foams, and with the strict requirements as laid down by the Environmental Protection Agencies (EPA), the major Oil Companies in Australia applied to Last Fire to test the foams available in Australia, and thereby determine which foams are effective in the extinguishment of fires, while still complying to the EPA's strict requirements. Last Fire agreed to this, and a decision was taken that all testing was to be done at the testing facilities of the Victoria University of Technology in Melbourne, Victoria. The testing facility, located at Fiskville, Victoria, is a purpose built facility, and widely used to test products on World Standards. A panel of three highly qualified and world recognised academics was appointed to control and evaluate the tests, and the required equipment was manufactured by the Victoria University of Technology. Last Fire personnel scrutinised, tested and evaluated all equipment, as well as the facility, before it was approved to be used for the tests.

OFB submitted two foam chemicals for testing, Pyrocool FEF and a chemical developed "in house" which was called OFB 1. As no standard exists in the world for testing and certification of foam applicators, Last Fire adapted their testing regime and agreed to test the OFB Compressed Air Foam System (CAFS) as an applicator.

The Last Fire Test Regime requires a circular fire pan, filled with 200 litres of water and 300 litres of High Octane Heptane fuel, which are pre-burned for three minutes before foam may be applied to extinguish the fire. The fire burns at a temperature of 800°C, and the flames reach a height of +/- 15 meters. The standard calls for the foam to extinguish the fire in 7 minutes. After 10 minutes, if the flames are not extinguished, the foam chemical fails the test and is not rated.

Using a 150 Litre CAFS with 600 ml of Pyrocool FEF and 149 Litres of water, the fire was completely extinguished in 13 seconds. OFB 1 foam chemical performed similarly. A foam expansion rate of >30:1 was achieved. Inductor systems presently in use achieve an expansion rate of +/-4:1. The CAFS and foam chemicals were awarded the highest certification. Good Performance 80%-100%. OFB CAFS are the only CAFS in the world to be officially certified.

The official test result was recorded as follows:

1. The fire was extinguished in +/- 13 seconds for both foams.
2. The surface temperature of the pan and the fuel were cool to the touch.
3. Re-ignition occurred after physical disturbance of the foam layer and application of a flame. A fully developed surface fire resulted.
4. Re-application of the foam using the CAF System resulted in rapid extinguishment.



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