



# Fire Fighting Foam Testing Services



## Service Information

**Introduction** Dyne Technologies is an independent compliance testing laboratory which has been providing the fire fighting industry with foam testing services since 1999. Our mission is two-fold – to provide quality, accurate and precise test results and to do so using a system that makes it easy for our customers.

**Turn-key System** Our goal at Dyne is to provide you with a worry-free system for meeting your fire fighting foam testing requirements. Our system includes:

- Free test kits with postage-paid-shipping labels, for standard NFPA testing
- Results guaranteed in one week or less
- Results archived and available via a phone call or through our secure web site
- Tags to attach to the tank stating type of foam and date tested
- 24 hour turn-around available upon request
- A reminder when it is time to test again
- Technical experts to answer your foam questions



**Laboratory** Our laboratory uses industry standards to test your foam to make sure it will perform effectively in a fire situation. We can test the foam concentrate in its raw, pre-diluted state or we can test a foam solution where the concentrate is already mixed with water.

The following is a list of specifications used to evaluate fire fighting foam:

- NFPA 11 Standard for Low-, Medium-, and High-Expansion Foam
- NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems
- International Maritime Organization (IMO) Guidelines for the Performance and Testing Criteria, and Surveys of Low-Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems
- NFPA 18 Standard on Wetting Agents
- Military Specification Fire Extinguishing Agent, Aqueous Film-Forming Foam (AFFF) Liquid Concentrate, for Fresh and Sea Water MIL-24385F

**Certifications** Dyne Technologies has been certified as meeting the requirements of the International Standards Organization ISO 9001:2008 Standards for Quality Management System—Certificate US04/33839.

**Contact** To order your free fire fighting foam testing kits, please call (800) 632-2304 or send us an electronic mail message at [lab@dyneusa.com](mailto:lab@dyneusa.com).

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*"At least annually, an inspection shall be made of foam concentrate and their tanks or storage containers for evidence of excessive sludging or deterioration. Samples of concentrates shall be sent to the manufacturer or qualified laboratory for quality condition testing."*

**- NFPA 11 Section on Foam Concentrate Inspection**





| Foam Test  | Specification   | Physical Property Tests  | Performance Property Tests   | Kits   |
|--|---|--|--|--|
| <b>TEST 1 NFPA 11 –</b><br>Customer must provide 500-mL of foam concentrate  | National Fire Protection Association (NFPA) 11 —<br>Standard for Low-, Medium- and High-Expansion Foam  | SAMPLE AS RECEIVED<br>Appearance<br>Refractive Index<br>Density<br>Viscosity*<br>pH                                    | SAMPLE MIXED WITH FRESH WATER<br>Low Expansion Foam<br>Expansion<br>Drain Time<br>Film Formation**<br>Film Sealability**<br>High Expansion Foam<br>Expansion (Using Hi-Ex Generator) | NFPA KIT<br>No Charge for Kits or Shipping<br>Postage-Paid Reply Label (U.S. Only)<br>500-mL Sample Jars |
| <b>TEST 2 IMO –</b><br>Customer must provide 2-liters of foam concentrate  | International Maritime Organization (IMO) —<br>Guidelines for the Performance and Testing Criteria, and Surveys of Low-Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems | SAMPLE AS RECEIVED<br>Appearance<br>Refractive Index<br>Density<br>Viscosity*  | SAMPLE AS RECEIVED<br>pH<br>Sediment<br>SAMPLE MIXED WITH SEA WATER<br>Expansion<br>Drain Time<br>Film Formation**<br>Film Sealability**   | IMO KIT<br>Charge Per Kit Plus Shipping<br>Customer Pays to Ship Kit<br>2-liter Sample Jar Required      |
| <b>TEST 3 PREMIX –</b><br>Customer must provide 500-mL of the foam concentrate, system water and mixed foam solution | National Fire Protection Association (NFPA) 11 —<br>Standard for Low-, Medium- and High-Expansion Foam  | SAMPLE AS RECEIVED<br>Appearance<br>Refractive Index<br>Density<br>pH  | SAMPLE TESTED WITH NO ADDITIONAL WATER DILUTION<br>Expansion<br>Film Formation**<br>Film Sealability**<br>Percent Concentration<br>Estimated Using Conductivity                      | NFPA KIT<br>No Charge for Kits or Shipping<br>Postage-Paid Reply Label (U.S. Only)<br>500-mL Sample Jars |
| <b>TEST 4 WATER –</b><br>Typically done on water from between the shell and bladder in a bladder tank system         | Not Applicable  | SAMPLE AS RECEIVED<br>Appearance<br>Refractive Index<br>Density<br>pH<br>Estimation of % Foam Concentrate in the Water | NO PERFORMANCE TESTING   | NFPA KIT<br>No Charge for Kits or Shipping<br>Postage-Paid Reply Label (U.S. Only)<br>500-mL Sample Jars |
| <b>TEST 5 NFPA 18 –</b><br>Customer must provide 500-mL of foam concentrate  | National Fire Protection Association (NFPA) 18 —<br>Standard on Wetting Agents  | SAMPLE AS RECEIVED<br>Appearance<br>Refractive Index<br>Density<br>pH  | SAMPLE MIXED WITH FRESH WATER<br>Expansion<br>Drain Time<br>Surface Tension  | NFPA KIT<br>No Charge for Kits or Shipping<br>Postage-Paid Reply Label (U.S. Only)<br>500-mL Sample Jars |

\* Alcohol Resistant Foams Only

\*\* Film Forming Foams Only such as Aqueous Film Forming Foam and Film Forming Fluoroprotein Foam