# FIREFIGHTING FOAM TESTING SERVICES

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## WHY TEST FIREFIGHTING FOAM?

Firefighting foam concentrates can be affected by aging, contamination, environmental exposure, improper storage, dilution, and other factors that may impact performance over time. These conditions can alter critical foam properties, including expansion, drainage characteristics, and fire suppression effectiveness. Laboratory testing helps evaluate foam quality, while verifying that concentrates remain suitable for service and capable of performing as intended during a fire event.

## LAB TESTING

We test a wide range of types:

**Class B Low Expansion Foam Concentrates**

Aqueous Film-Forming Foam (AFFF), Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF), Protein, Fluoroprotein, Film Forming Fluoroprotein (FFFP), Alcohol Resistant Film Forming Fluoroprotein (AR-FFFP), Synthetic Fluorine Free Foam (SFFF), Alcohol Resistant Synthetic Fluorine Free Foam (AR-SFFF)

**Class A Foam Concentrates**
**Wetting Agents**
**High Expansion Concentrates**
**Foam Solution/Pre-Mix**
**Bladder Water**
**Marine Compliance**

## WHY TEST WITH DYNE?

- Test reports in 5-business days or less (rush 24 hour turn-around available)
- Free Firefighting Foam sample kits
- Free shipping within the contiguous United States (limited free 1-way shipping to Alaska, Hawaii, Puerto Rico, and Canada, inquire for details)
- Comprehensive reports and tank tags
- Online access to results and return forms
- Immediate communication with our quality technician or customer service staff

## RELEVANT STANDARDS

- NFPA 11, Standard for Low, Medium and High-Expansion Foam
- NFPA 18, Standard on Wetting Agents
- NFPA 25, Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems
- IMO 1312: Guidelines for the Performance and Testing Criteria, and Surveys of Foam Concentrates for Fixed Fire-Extinguishing Systems
- IMO 670: Guidelines for the Performance and Testing Criteria and Surveys of High-Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems
- USCG Federal Registry 46 CFR Shipping Part 31

## FREE SAMPLE TEST KITS & SHIPPING

- 2-bottle NFPA, 4-bottle NFPA, and IMO/CG kits available
- Each kit contains sample containers, a marker, and a form
- UPS Ground shipping to you is included as well as return labels (UPS/USPS) that can be used within the contiguous United States (limited 1-way free shipping to Alaska, Hawaii, and Canada, inquire for details.)




NFPA® GLOBAL SOLUTIONS

**Contact Us!**

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| NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) | TYPES OF SAMPLES | PHYSICAL PROPERTY TESTS | PERFORMANCE PROPERTY TESTS |
|---|---|---|---|
| NFPA 11 – STANDARD FOR LOW-, MEDIUM AND HIGH-EXPANSION FOAM<br><br>*Customer must provide 250 ml of concentrate and water in addition to sample. | **Foam Concentrate**<br>• Aqueous Film Forming Foam (AFFF)<br>• Alcohol Resistant Foam (AR-AFFF)<br>• Protein/Fluoroprotein<br>• Film Forming Fluoroprotein (FFFP, AR-FFFP)<br>• High Expansion | • Appearance<br>• Refractive Index<br>• Density<br>• pH<br>• Viscosity[1] | Sample mixed with fresh water<br>• Expansion<br>• Drain Time<br>• Film Confirmation[2] |
| | **Foam Solution**<br>Performance testing ONLY<br><br>Foam and water mixture stored in solution form | • Appearance<br>• Refractive Index<br>• Density<br>• pH | Sample tested with no additional water dilution<br>• Expansion<br>• Film Confirmation[2] |
| | **Foam Solution**<br>Proportioning testing ONLY<br><br>Made from concentrates listed above already mixed with water* | • Appearance<br>• Refractive Index<br>• Density<br>• pH | Sample tested with no additional water dilution<br>• Percent Concentration |
| | **Foam Solution**<br>Performance & Proportioning testing<br><br>Made from concentrates listed above already mixed with water* | • Appearance<br>• Refractive Index<br>• Density<br>• pH | Sample tested with no additional water dilution<br>• Expansion<br>• Film Confirmation[2]<br>• Percent Concentration |
| NFPA 18– STANDARD ON WETTING AGENTS | **Foam Concentrate**<br>• Wetting Agents<br>• Class A Foams | • Appearance<br>• Refractive Index<br>• Density | Sample mixed with fresh water<br>• pH<br>• Surface Tension<br>• Expansion (on select products only)<br>• Drain Time (on select products only) |
| INTERNATIONAL MARITIME ORGANIZATION (IMO)<br><br>MSC.1/CIRC. 1312 AND USCG CFR TITLE 46 | **Foam Concentrate**<br>• Aqueous Film Forming Foam (AFFF)<br>• Alcohol Resistant Foam (AR-AFFF)<br>• Protein/Fluoroprotein<br>• Film Forming Fluoroprotein (FFFP, AR-FFFP)<br>• High Expansion | • Appearance<br>• Refractive Index<br>• Density<br>• Viscosity[1] | Sample mixed with sea water<br>• pH<br>• % Sediment<br>• Sediment Dispersion<br>• Expansion<br>• Drain Time<br>• Film Confirmation[2]<br>• Estimated % Dilution<br>• Acetone*<br>• Burnback *<br>*AR protein based foams only |

[1] Alcohol resistant foams only [2] Film forming foams only such as aqueous film forming foam and film forming fluoroprotein foam. Film formation and film sealability or surface tension, interfacial tension and spreading coefficient used to determine film formation.