

TYCO FIRE PROTECTION PRODUCTS FOAM TEST LAB—REQUEST FOR ANALYSIS

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|---|---|--|
| <p>Requested By:</p> <p>Company: _____</p> <p>Address: _____</p> <p>City: _____ State: _____ Zip: _____</p> <p>Vessel or Facility: _____</p> <p>Contact Name: _____</p> <p>Email: _____</p> <p>Phone: _____</p> <p>Make sure your address and email are clearly written. Results will be sent via email to the above email address.</p> | <p>PURCHASE ORDER NO. _____</p> <p>For credit card payments, please provide contact name and phone number:</p> <p>Contact name: _____</p> <p>Phone number: _____</p> <p><input type="checkbox"/> Rush Analysis: Only available for orders containing up to five (5) samples. Rush orders are an additional \$100/sample and have a typical turn around time of 2-3 working days after sample is received by the lab. Marine/IMO orders require an additional working day for conditioning requirements.</p> | <p>Ship Request/Samples To:</p> <p>TYCO FIRE PROTECTION PRODUCTS ATTN: FOAM TEST LAB BUILDING 130, RECEIVING #7 2700 INDUSTRIAL PARKWAY SOUTH MARINETTE, WI 54143-2542 PHONE: +1-715-732-3600 EMAIL: BTS-foamtesting@jci.com</p> <p>Total Samples in This Request: _____</p> <p>Box: _____ of _____</p> |
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International requests require Safety Data Sheet with TSCA information or a signed TSCA compliance form.

| | Sample Type | Concentration | Sample Information | | TESTING/REPORT |
|--|--|--|--|---|--|
| <p>Sample Number: _____</p> <p>Manufacturer: _____</p> <p>Product Name: _____</p> <p>Lot Number: _____</p> <p>Purchase Date: _____</p> <p><input type="checkbox"/> Concentrate</p> <p><input type="checkbox"/> Premix (foam/water mixture for standard quality)*</p> <p><input type="checkbox"/> Premix (foam/water mixture for proportioning)</p> <p><input type="checkbox"/> System Water</p> <p><input type="checkbox"/> Shell Water</p> <p>*additional sample required (see back of form)</p> | <p><input type="checkbox"/> Non-Fluorinated (SFFF)</p> <p><input type="checkbox"/> AR Non-Fluorinated (AR-SFFF)</p> <p><input type="checkbox"/> Non-Fluorinated Protein</p> <p><input type="checkbox"/> High Expansion</p> | <p><input type="checkbox"/> 1%</p> <p><input type="checkbox"/> 2%</p> <p><input type="checkbox"/> 2.75%</p> <p><input type="checkbox"/> 3%</p> <p><input type="checkbox"/> 6%</p> <p><input type="checkbox"/> 1x3%</p> <p><input type="checkbox"/> 3x3%</p> <p><input type="checkbox"/> 3x6%</p> <p><input type="checkbox"/> Other: _____</p> <p>Premix %: _____</p> | <p>Sample Point</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Middle</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Circulated</p> <p><input type="checkbox"/> Mixture</p> | <p>Storage Container</p> <p><input type="checkbox"/> Atmospheric Tank</p> <p><input type="checkbox"/> Bladder Tank</p> <p><input type="checkbox"/> Foam Cart</p> <p><input type="checkbox"/> Tote</p> <p><input type="checkbox"/> Drum</p> <p><input type="checkbox"/> Pail</p> <p><input type="checkbox"/> Other</p> | <p>Testing Requested</p> <p><input type="checkbox"/> Standard Quality</p> <p><input type="checkbox"/> Proportioning</p> <p><input type="checkbox"/> Marine/IMO</p> <p><input type="checkbox"/> Shell Water</p> <p>Fuel for SFFF Lab Scale Fire Test (see back)</p> <p><input type="checkbox"/> Heptane</p> <p><input type="checkbox"/> Acetone</p> |
| <p>Sample Number: _____</p> <p>Manufacturer: _____</p> <p>Product Name: _____</p> <p>Lot Number: _____</p> <p>Purchase Date: _____</p> <p><input type="checkbox"/> Concentrate</p> <p><input type="checkbox"/> Premix (foam/water mixture for standard quality)*</p> <p><input type="checkbox"/> Premix (foam/water mixture for proportioning)</p> <p><input type="checkbox"/> System Water</p> <p><input type="checkbox"/> Shell Water</p> <p>*additional sample required (see back of form)</p> | <p><input type="checkbox"/> Non-Fluorinated (SFFF)</p> <p><input type="checkbox"/> AR Non-Fluorinated (AR-SFFF)</p> <p><input type="checkbox"/> Non-Fluorinated Protein</p> <p><input type="checkbox"/> High Expansion</p> | <p><input type="checkbox"/> 1%</p> <p><input type="checkbox"/> 2%</p> <p><input type="checkbox"/> 2.75%</p> <p><input type="checkbox"/> 3%</p> <p><input type="checkbox"/> 6%</p> <p><input type="checkbox"/> 1x3%</p> <p><input type="checkbox"/> 3x3%</p> <p><input type="checkbox"/> 3x6%</p> <p><input type="checkbox"/> Other: _____</p> <p>Premix %: _____</p> | <p>Sample Point</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Middle</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Circulated</p> <p><input type="checkbox"/> Mixture</p> | <p>Storage Container</p> <p><input type="checkbox"/> Atmospheric Tank</p> <p><input type="checkbox"/> Bladder Tank</p> <p><input type="checkbox"/> Foam Cart</p> <p><input type="checkbox"/> Tote</p> <p><input type="checkbox"/> Drum</p> <p><input type="checkbox"/> Pail</p> <p><input type="checkbox"/> Other</p> | <p>Testing Requested</p> <p><input type="checkbox"/> Standard Quality</p> <p><input type="checkbox"/> Proportioning</p> <p><input type="checkbox"/> Marine/IMO</p> <p><input type="checkbox"/> Shell Water</p> <p>Fuel for SFFF Lab Scale Fire Test (see back)</p> <p><input type="checkbox"/> Heptane</p> <p><input type="checkbox"/> Acetone</p> |

NOTICE:

Tyco Fire Protection Products Foam Test Lab **does not accept** or test fluorinated foam products as of April 1, 2024.
Any samples of products known to be manufactured with fluorochemicals or unknown samples **will be returned without analysis.**
Note: Due to the volume of samples received, ANY SAMPLE WITH INCOMPLETE INFORMATION WILL HAVE A DELAY IN COMPLETION.
It is the sender's responsibility to provide complete information and samples of sufficient quantity.

TYCO FIRE PROTECTION PRODUCTS FOAM TEST LAB—General Foam Sampling Information

General Sampling:

- Samples need to be representative of the contents in the storage tank or container.
- Circulate or mix tanks or containers if possible. **Tanks and sample containers containing mineral oil should not be circulated or mixed. Ensure that samples are taken below the mineral oil as mineral oil is known to adversely affect foam test results.**
- Allow sufficient concentrate to flush through any piping before collecting a sample. Taking a representative sample can also be accomplished by sampling multiple locations inside the container. Please note the sample location.
- Tyco offers the Tyco Fire Protection Products Foam Test Lab Kit (Part No 710808) for ease of sampling and these are the preferred containers for sending in material for testing. There may be a delay in testing samples sent in other containers if damaged during shipment.
To obtain a free Sampling Kit, Contact your account representative or Customer Service at 1-800-862-6785.
- Proportioning analysis requires three (3) samples:
 - A sample of mixed foam-water solution from the discharge device or test connection. The system should be run long enough to ensure proper mixing and that the sample is representative of an actual discharge.
 - A sample of the foam concentrate from the system.
 - A sample of system water. Proper calibration and analysis require the water sample to be representative of the water used to make the foam-water solution.
- Label samples and complete all required sections of the Request for Analysis form. Provide a Safety Data Sheet (SDS) for all samples.
- Be sure all contact information (name, address, email, phone, etc.) is **clearly written**. Results will only be sent by e-mail unless otherwise indicated.
- The product viability recommendations can only be based upon analysis results of the samples received. Hence, no statements of quality are intended to include any product other than that which is received by Tyco Fire Protection Products for testing. The Foam Test Lab makes no express or implied warranty of product viability or implied warranty of fitness for a particular purpose. Analysis results will be sent upon completion of testing.

Minimum sample volume needed for testing:

- Concentrate: 500 mL (~16 oz)
- Premix (foam/water mix): 4 Liters (1 gallon)
- Proportioned sample: 100 mL (~4 oz)
- System water for proportioning: 1 liter (~ 32 oz)

Charges:

| | |
|---------------------------------|----------|
| Standard Quality with Lab Fire | \$200.00 |
| Proportioning Calibration Curve | \$150.00 |
| Added Proportioning Sample | \$50.00 |
| Standard Quality High Expansion | \$150.00 |
| Added Drain Time | \$50.00 |
| Shell Water Testing | \$50.00 |

Abbreviations/Definitions:

| | |
|---------|--|
| IMO | International Maritime Organization |
| Hi-Ex | High-Expansion |
| PREMIX | Solution of water and foam concentrate proportioned at the correct use level. (e.g. 1% Foam with 99% water by volume). |
| SFFF | Synthetic Fluorine Free Foam also known as NFF or Non-Fluorinated Foam |
| AR-SFFF | Alcohol Resistant Synthetic Fluorine Free Foam also known as AR-NFF or Alcohol Resistant Non-Fluorinated Foam |

Testing Overview:

- See the chart below for testing that is included in the standard cost of foam analysis by foam agent type.
- Foam quality includes expansion ratio and drain time. High expansion drain time available at an additional cost.
- Standard Quality Testing is conducted using tap (potable) water. Low-expansion foam quality is tested according to NFPA 11 Annex D (2016). High-expansion foam quality is tested according to NFPA 11 Annex G (2016).
- Marine/IMO Testing is conducted using synthetic seawater. Low-expansion foam quality is tested according to IMO MSC.1/Circ.1312. High-expansion foam quality is tested according to NFPA 11 Annex G (2016).

| Foam Type | Included in Standard Quality and Marine/IMO Testing | | | | | | Included in Marine/IMO Testing | Lab Scale Fire |
|-------------------------|---|---------|----|----------------|-----------|--------------|--------------------------------|----------------|
| | Refractive Index | Density | pH | Film Formation | Viscosity | Foam Quality | Sediment | |
| Non-Fluorinated Protein | X | X | X | | | X | X | X |
| Hi-Ex | X | X | X | | | X | X | |
| SFFF | X | X | X | | X | X | | X |
| AR-SFFF | X | X | X | | X | X | | X |

NOTICE: Lab cannot receive credit card information by mail, email or fax.