

Foam Testing Guide

How to Get Your Foam Tested, Guide and Application Form



Firefighting foam concentrates are the preferred extinguishing medium for many flammable liquid risks. It is vital the foam performs when called upon during any stage of its operational life, therefore it is vital that the foam is tested regularly.

Although foam concentrates have excellent storage characteristics, they can be subjected to harsh climatic conditions outside their intended design criteria or be accidentally spoiled due to contamination by foreign substances or by dilution with water. Because all foam concentrates are organic materials they will inevitably suffer a decline in properties and performance with the passage of time.

The need for regular inspection and testing of foam stocks is recognised in international standards such as NFPA 11 (2010 edition), section 12.6.

Foam samples should be sent to the manufacturer or other qualified laboratory at least annually for a full assessment to be done. Where the concentrate is known to be nearing the end of its operational life or is subject to extreme conditions, then consideration should be given to increasing the frequency of testing.

Samples should be clearly labelled with origin, foam type, and recommended induction rate. All samples should be packed securely with a completed Foam Testing Service Application Form and sent to the return address overleaf.

Foam Concentrate

A one litre sample of foam concentrate in a clean polythene container is required. If new unused containers are unavailable, ensure the containers are washed properly beforehand. Do not use containers which have previously contained detergent or oil materials.

Samples of foam concentrates should be representative of the parent stock. A foam drum should be rolled or agitated to produce a homogeneous mix before drawing a sample from the top. For bulk foam storage tanks circulate the contents to produce a homogeneous mix before taking a sample. Alternatively draw samples from the top, middle and base. Use a hollow tube to take a sample from the middle. For the base sample use a side-exiting outlet pipe or alternatively run off about 25 litres of foam first to remove any accumulated sediment. This run-off may be returned to the top of the tank. Several samples may be mixed equally to produce a single composite sample.

Foam Premix Solutions

Activate the fixed foam system and allow sufficient time for it to achieve equilibrium. For overhead devices, the sample collector should be placed in the discharge area where it is anticipated a representative foam pattern will occur. For foam chambers, where access can be gained to a flowing foam stream, the container can be inserted into the edge of the stream to split off a portion for the sample. The other alternative is to scoop foam from a blanket already on the surface. Here an attempt should be made to obtain a full cross-section of foam from the entire depth. Sufficient aerated foam should be collected to provide a 100ml sample of foam solution after draining. Clearly labelled one litre samples of the foam concentrate and the water used in the foam system must also be submitted.

Do

- Do submit 1 litre samples of foam concentrate.
- Do use new polythene containers where possible.
- Do wash out previously used containers and ensure they are clean.
- Do take a "representative" sample after mixing the parent stock.
- Do label the sample.

Do not

- Do not use containers which have previously contained detergent or oil.
- Do not use containers which may split or leak during transit.
- Do not take samples from a tank or drum without first mixing the foam.
- Do not submit premix solutions without a sample of the foam concentrate and system water.
- Do not submit foams without a label.

Foam Testing Guide - Application Form

Company: _____ Customer Name: _____ Address: _____ _____ _____ Country: _____	Order Number: _____
Email: _____ Phone: _____ Fax: _____	

Sample Information	<input checked="" type="checkbox"/> 1 litre sample	<input checked="" type="checkbox"/> Clean Bottle	<input checked="" type="checkbox"/> One form per sample
Concentration	<input type="checkbox"/> 1%	<input type="checkbox"/> 3%	<input type="checkbox"/> 6%
	<input type="checkbox"/> 1-3%	<input type="checkbox"/> 3-3%	<input type="checkbox"/> 3-6%
Storage Type	<input type="checkbox"/> Original containers	<input type="checkbox"/> Bulk tank	<input type="checkbox"/> Don't know _____
	<input type="checkbox"/> 20/25 ltr	<input type="checkbox"/> 200 ltr	<input type="checkbox"/> 6-6%
Container Volume	<input type="checkbox"/> 1000 ltr	<input type="checkbox"/> Other _____	
Sample Location	<input type="checkbox"/> Top	<input type="checkbox"/> Middle	<input type="checkbox"/> Bottom
Sample Age (years)	<input type="checkbox"/> Under 2	<input type="checkbox"/> 2 - 5	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Over 5	<input type="checkbox"/> Estimate _____	
Comments	_____		

Internal Use Only

<input type="checkbox"/> RC	<input type="checkbox"/> SA	<input type="checkbox"/> SS
_____	_____	_____
<input type="checkbox"/> TD	<input type="checkbox"/> RS	<input type="checkbox"/> SO

Return address

**Foam Testing Department
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