



UL 162

STANDARD FOR SAFETY

Foam Equipment and Liquid Concentrates

ULNORM.COM : Click to view the full PDF of UL 162 2024

[ULNORM.COM](https://ulnorm.com) : Click to view the full PDF of UL 162 2024

UL Standard for Safety for Foam Equipment and Liquid Concentrates, UL 162

Eighth Edition, Dated February 23, 2018

Summary of Topics

This revision of ANSI/UL 162 dated September 24, 2024 includes the following changes:

- Addition of Separation Test: Section [6B](#);***
- Removal of maximum drain time requirement for foams with extended drain times: [10.1.1](#);
and***
- Editorial correction to [Table 11.2](#)***

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated April 12, 2024 and August 9, 2024.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of ULSE Inc. (ULSE).

ULSE provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will ULSE be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if ULSE or an authorized ULSE representative has been advised of the possibility of such damage. In no event shall ULSE's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold ULSE harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 162 2024

FEBRUARY 23, 2018
(Title Page Reprinted: September 24, 2024)



ANSI/UL 162-2024

1

UL 162

Standard for Foam Equipment and Liquid Concentrates

The first through fourth editions were titled Air-Foam Equipment and Liquid Concentrates.

First Edition – May, 1960
Second Edition – August, 1969
Third Edition – March, 1974
Fourth Edition – June, 1975
Fifth Edition – June, 1983
Sixth Edition – March, 1989
Seventh Edition – March, 1994

Eighth Edition

February 23, 2018

This ANSI/UL Standard for Safety consists of the Eighth Edition including revisions through September 24, 2024.

The most recent designation of ANSI/UL 162 as an American National Standard (ANSI) occurred on September 24, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

Our Standards for Safety are copyrighted by ULSE Inc. Neither a printed nor electronic copy of a Standard should be altered in any way. All of our Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of ULSE Inc.

© 2024 ULSE Inc. All rights reserved.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 162 2024

CONTENTS

INTRODUCTION

1 Scope5
 2 Units of measurement5
 3 Components5
 4 Glossary5

CONSTRUCTION

5 Foam Equipment.....9
 5.1 Assembly.....9
 5.2 Materials.....10
 5.3 Rated pressure.....11
 6 Foam Liquid Concentrates11
 6.1 Induction methods11
 6.2 Containers11

PERFORMANCE

6A Combustion Ion Chromatography.....12
 6B Separation Test.....12
 7 Film Forming Test.....12
 8 Hydraulic Characteristics Test13
 8.1 General13
 8.2 Foam chambers13
 8.3 Foam-water sprinklers13
 9 Hydraulically Powered Oscillating Monitor Cycling Test14
 10 Foam Quality Tests.....14
 10.1 General.....14
 10.2 Twenty-five percent drain time test.....15
 10.3 Expansion Test.....17
 10.4 Verification of liquid-concentrate concentration.....18
 11 Class B Fire Tests – Sprinklers and Spray Nozzles.....18
 11.1 General.....18
 11.2 Fuel.....18
 11.3 Test method.....19
 11.4 Application density and sprinkler or spray nozzle arrangement.....19
 11.5 Fuel ignition and foam discharge.....21
 12 Class B Fire Tests – Topside Discharge Devices21
 12.1 General.....21
 12.2 Fuel.....22
 12.3 Test method22
 12.4 Application density and nozzle positioning23
 12.5 Fuel ignition and foam discharge.....24
 13 Class B Fire Tests – Subsurface Injection.....24
 13.1 General.....24
 13.2 Fuel.....25
 13.3 Test Method25
 14 Induction Rate Tests25
 15 Minimum Storage Temperature Test26
 16 Hydrostatic Pressure Test26
 17 Equipment Pressurization Test26
 18 10-Day Moist Ammonia Air Stress Cracking Test27

19	Salt Spray Corrosion Test.....	28
20	Elastomeric Parts Tests Other Than Hose	28
	20.1 General.....	28
	20.2 Parts other than bladder parts.....	29
	20.3 Non-reinforced bladder parts	29
	20.4 Reinforced bladder parts	30
21	Rubber Materials Tests – Hose.....	30
	21.1 General.....	30
	21.2 Light and water test.....	30
	21.3 Air-oven aging test.....	30
22	Exposure Tests for Polymeric Materials and Fiberglass Components Used in Parts Other Than Containers	30
	22.1 Air-oven aging test.....	30
	22.2 Foam liquid concentrate immersion test.....	31
	22.3 Foam solution exposure test.....	32
	22.4 Light and water test.....	32
23	Drop Test.....	33
24	Nonmetallic Container Tests.....	33
	24.1 Immersion test for cracking resistance.....	33
	24.2 Air-oven aging test.....	33
	24.3 Accelerated storage test.....	34
	24.4 Light and water test.....	34

MARKING

25	Foam Equipment.....	34
26	Foam Liquid Concentrates	35

Appendix A

	Standards for Components	36
--	--------------------------------	----

ULNORM.COM : Click to view the full PDF of UL 162-2024