



ANSI/CAN/UL 330:2024

JOINT CANADA-UNITED STATES
NATIONAL STANDARD

STANDARD FOR SAFETY

Hose and Hose Assemblies for
Dispensing Flammable and
Combustible Liquids

ULNORM.COM ! Click to view the full PDF of UL 330 2024



ANSI/UL 330-2024

SCC FOREWORD

National Standard of Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

ULNORM.COM : Click to view the full PDF of UL 330 2024

UL Standard for Safety for Hose and Hose Assemblies for Dispensing Flammable and Combustible Liquids, ANSI/CAN/UL 330

Ninth Edition, Dated February 11, 2021

SUMMARY OF TOPICS

This revision of ANSI/CAN/UL 330 dated March 6, 2024 includes changes to clarify and align the plus and minus tolerances for mandrels; [10.3.1](#), [Figure 10.1](#), [13.3.1](#), [13.4.1](#), [22.2](#), [28.1.1](#), [28.1.2](#), and [28.3.1](#).

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 revised requirements are substantially in accordance with Proposal(s) on this subject dated June 16, 2023 and October 27, 2023.

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 330 2024



ANSI/UL 330-2024

FEBRUARY 11, 2021
(Title Page Reprinted: March 6, 2024)



1

ANSI/CAN/UL 330:2024

**Standard for Hose and Hose Assemblies for Dispensing Flammable and
Combustible Liquids**

The First edition was titled the Standard for Construction of Rubber Hose for Conducting Gasoline. The Second edition was titled the Standard for 3/4-, 1-, and 1-1/4-inch Hose for Conducting Gasoline. The Third edition was titled the Standard for Hose for Conducting Gasoline. The Fourth edition was titled the Standard for Gasoline Hose. The Fifth edition was titled the Standard for Hose and Hose Assemblies for Dispensing Flammable Liquids.

First Edition – September, 1917
Second Edition – March, 1937
Third Edition – July, 1950
Fourth Edition – June, 1973
Fifth Edition – August, 1978
Sixth Edition – August, 1996
Seventh Edition – December, 2009
Eighth Edition – June, 2017

Ninth Edition

February 11, 2021

This ANSI/CAN/UL Safety Standard consists of the Ninth Edition including revisions through March 6, 2024.

The most recent designation of ANSI/UL 330 as an American National Standard (ANSI) occurred on March 6, 2024. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This standard has been designated as a National Standard of Canada (NSC) on March 6, 2024.

COPYRIGHT © 2024 ULSE INC.

No Text on This Page

ULNORM.COM : Click to view the full PDF of UL 330 2024

CONTENTS

Preface	7
---------------	---

INTRODUCTION

1 Scope	9
2 General	9
2.1 Units of measurements	9
2.2 Referenced Publications	9
3 Glossary	10

CONSTRUCTION

4 Tube and Cover	12
4.1 Single-line hose and double-line vapor recovery hose	12
4.2 Coaxial vapor recovery hose	12
5 Thickness of Cover	12
6 Internal Diameter	13
7 Electrical Bonding	13
8 Couplings	13

PERFORMANCE

9 General	14
10 Repeated Bending Test (Empty)	14
10.1 General	14
10.2 Sample	14
10.3 Apparatus	14
10.4 Method	14
11 Hydrostatic Strength Test	17
11.1 General	17
11.2 Sample	17
11.3 Apparatus	17
11.4 Method	17
12 Test for Resistance to External Pressure	18
12.1 General	18
12.2 Sample	18
12.3 Apparatus	18
12.4 Method	18
13 Repeated Bending Test (Filled)	18
13.1 General	18
13.2 Sample	19
13.3 Apparatus	19
13.4 Method	19
14 Permeation Test (For Low Permeation Hose)	20
14.1 General	20
14.2 Test equipment	20
14.3 General test procedure and instructions	20
14.4 Samples	21
14.5 Pretest procedure	21
14.6 Preconditioning procedure	22
14.7 Permeation test procedure	22
14.8 Steady state criteria	23

15	Electrical Resistance Tests for Hose Having Nonmetallic Electrically Conductive Materials	24
15.1	General	24
15.2	Samples	24
15.3	Apparatus	24
15.4	Method	24
16	Leakage and Electrical Continuity Test	25
16.1	General	25
16.2	Sample	25
16.3	Apparatus	25
16.4	Method	25
17	Swivel Joint Operation Test	26
17.1	General	26
17.2	Sample	26
17.3	Method	26
18	Check Valve Endurance Test	28
19	Pull Test	28
19.1	General	28
19.2	Sample	28
19.3	Equipment	29
19.4	Method	29
20	Adhesion Test	29
20.1	General	29
20.2	Sample	29
20.3	Apparatus	29
20.4	Method	29
21	Deformation Test	30
22	Kink Test	30
23	Tensile Strength and Ultimate Elongation Tests	30
23.1	General	30
23.2	Strips and specimens	31
23.3	Apparatus	31
23.4	Method	31
24	Accelerated Air Oven Aging Test	32
24.1	General	32
24.2	Strips and specimens	32
24.3	Apparatus	32
24.4	Method	32
24.5	O-rings	32
25	Ozone Exposure Test	32
25.1	General	32
25.2	Samples	33
25.3	Apparatus	33
25.4	Method	33
26	Ultraviolet Light and Water Exposure Test	33
26.1	General	33
26.2	Sample	33
26.3	Method	33
27	Immersion Tests	34
27.1	Tensile strength and ultimate elongation	34
27.2	Strips and specimens	34
27.3	Apparatus	34
27.4	Method	34
27.5	Volume change	35
27.6	O-rings, gaskets, and sealing materials	36
28	Low Temperature Test	36
28.1	General	36