CAN/ULC 519.1:2014 (R2024)

Standard for Synthetic Percolating Forestry Hose

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The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for the particular application.

Copies of this National Standard of Canada may be ordered from ULC Standards.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE

Standard for Synthetic Percolating Forestry Hose, CAN/ULC 519.1

Second Edition, Dated June 1, 2014

Summary of Topics

This revision of CAN/ULC 519.1 dated July 19, 2024 is being issued to update the title page to reflect the reaffirmation of this Second Edition National Standard of Canada. No changes in requirements are involved.

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 requirements are substantially in accordance with Proposal(s) on this subject dated May 3, 2024.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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CAN/ULC 519.1:2014 (R2024)

Standard for Synthetic Percolating Forestry Hose

ICS 13.220.20; 65.060.80

First Edition . . . . . November 1995
SECOND EDITION . . . . . JUNE 2014
Reaffirmed . . . . . February 2019
REAFFIRMED . . . . . JULY 19, 2024

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ULC STANDARDS COMMITTEE ON FIRE PROTECTION EQUIPMENT AND SYSTEMS

NAME	AFFILIATION	CATEGORY	REGION
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Bokovay, D.	Canadian Interagency Forest Fire	Testing & Standards Org.	Canada
Burridge, A.	Ajax Fire & Emergency Services	Authorities Having Jurisdiction	Ontario
Darley, P.	Miami Beach Fire Department	Authorities Having Jurisdiction	USA
Faulkner, P.	Clean Harbors	Commercial / Industrial Users	Canada
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Mclean, C.	Midland Fire Department	Authorities Having Jurisdiction	Canada
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Roessing-Zewe, A.	UL Standards & Engagement	Project Manager (Non-voting)	USA
Sethuraman, V.	Profire Safety Consultants	General Interest	United Arab Emirates
Suche, R.	Fire Apparatus Manufacturer's Association	Producer	Canada
Tiller, D.	Office of the Fire Marshal and Emergency Management	Authorities Having Jurisdiction	Ontario

This list represents the membership at the time the Committee balloted on the final text of this edition. Since that time, changes in the membership may have occurred.

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PREFACE

This is the Second Edition of the Standard for Synthetic Percolating Fire Hose, CAN/ULC 519.1.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Fire Protection Equipment and Systems.

This Standard has been developed in compliance with the requirements of SCC for accreditation of a Standards Development Organization.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

Annex A, identified as informative, is for informational purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Second Edition National Standard of Canada is based on, and now supersedes, the First Edition.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patent rights. ULC Standards shall not be held responsible for identifying any or all such patent rights.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

This CAN/ULC 519.1 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

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

This Standard is intended to be used for conformity assessment.

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1 SCOPE

1.1 This Standard applies to 25 and 38 mm synthetic percolating type hoses having a minimum *service test pressure* of 2070 kPa suitable for use in forest fire suppression. These hoses are classified as follows:

NOTE: All references to values of pressure and vacuum, unless otherwise indicated, shall be considered as “gauge”.

Class A: woven jacketed synthetic fibre with an integral lining; and

Class B: rubber covered jacket and rubber lined.

1.2 The Class A hose shall have characteristics of wetting to help protect it from burning.

2 REFERENCE PUBLICATIONS

2.1 The documents shown below are referenced in the text of this Standard. Unless otherwise stated elsewhere in this Standard such reference shall be considered to indicate the edition and/or revisions of the document available at the date on which the Committee approved this ULC Standard.

Documents Published by the American Society for Testing and Materials (ASTM)
100 Barr Harbour Drive, PO Box C700, West Conshohocken, PA 19428-2959 U.S.A.
Telephone: (610) 832-9585
www.astm.org

• ASTM D1149-07 (R2012), Standard Test Method For Rubber Deterioration – Surface Ozone Cracking in a Chamber

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Documents Published by the Canadian General Standards Board (CGSB)
Canadian General Standards Board, Gatineau, QC K1A 1G6 Canada
Telephone: (819) 956-0425 or 1-800-665-2472
www.pwgsc.gc.ca/cgsb

• CAN/CGSB-4.2 – 28.4 -M91 (R2013), Resistance to Micro-organisms – Fungus Damage Test – Pure Culture – Qualitative

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Documents Published by ULC Standards
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada
Telephone: (416) 757-3611, ext. 61744; Fax (613) 231-5977, “ATTN: Publications”
E-mail: publications@ulc.ca
www.ulc.ca

• CAN/ULC-S513-11, Standard for Threaded Couplings for 38 mm and 65 mm Fire Hose
• CAN/ULC-S551-13, Standard for Forged External Lug Quick Connect Couplings and Adapters for Forestry Fire Hose
• CAN/ULC-S558-13, Standard for External Lug Quick Connect Couplings and Adapters for Forestry Fire Hose

3 GLOSSARY

NOTE: Terms used in this Standard that are in *italic* print are defined as follows:

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BURST RESISTANCE PRESSURE – The pressure which all hoses must resist prior to bursting. It equals 2.5 times the *service test pressure*.

KINK PRESSURE – The pressure used for the kink test. It equals 1.5 times the *service test pressure*.

OPERATING PRESSURE – The pressure at which the hose is designed to be used.

PROOF PRESSURE – The pressure applied to new production hoses to indicate their acceptability at the intended operating pressure. It equals 2 times the *service test pressure*.

SERVICE TEST PRESSURE – The pressure at which the hose is periodically tested to determine that it can remain in service. It equals 1.1 times the *operating pressure*.

4 CONSTRUCTION

4.1 JACKET

4.1.1 The hose jacket shall be woven from first quality synthetic yarns suitable for the purpose, which shall be virtually free from knots, shives, and other imperfections. The fabric shall be of uniformly even and firm texture and shall be free from all defects that might affect serviceability.

4.2 LINING

4.2.1 The lining shall consist of a synthetic polymer compound permanently adhered to the inner circumference of the hose. The entire lining shall be free from pits and other manufacturing imperfections, and shall have a smooth interior surface except for unevenness due to the weave. The entire lining shall adhere to the jacket over the entire surface when tested as described in Clause 4.2.2.

4.2.2 Hose that has been subjected to the pressure test, and the heat resistance test shall be cut in lengths of at least 150 mm, and examined visually for bonding of the lining while being flexed manually. Twelve samples taken equally from an original 3 m length shall be examined. Not more than one defect shall be permitted. A single separation showing on the two ends resulting from one cut is defined as one defect. Pieces are not to be cut from the hose in the area where the hot block was placed.

5 REQUIREMENTS FOR FINISHED HOSE

NOTE: The hose should be placed in a suitable enclosure during testing to protect the operator when pressures greater than 2070 kPa are required for testing.

5.1 MASS

5.1.1 The mass of a 30 m length of Class A hose, exclusive of fittings, shall be not more than 115 g/m for the 25 mm size and 190 g/m for the 38 mm size when conditioned at a relative humidity of 65 ± 2% at a temperature of 21 ± 1°C for 24 h.

5.1.2 The mass of a 30 m length of Class B hose, exclusive of fittings, shall be not more than 150 g/m for the 25 mm size and 250 g/m for the 38 mm size when conditioned at a relative humidity of 65 ± 2% at a temperature of 21 ± 1°C for 24 h.

5.2 LENGTH

5.2.1 The hose shall be in lengths averaging not less than 30.5 m with a minimum length of 30 m other than the length from which a burst test sample was taken.

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