



CAN/ULC-S610:2018

STANDARD FOR FACTORY-BUILT FIREPLACE SYSTEMS



Standards Council of Canada
Conseil canadien des normes

This is a preview. [Click here to purchase the full publication.](#)

Underwriters Laboratories of Canada (ULC) was established in 1920 by letters patent issued by the Canadian Government. It maintains and operates laboratories and certification services for the examination, testing and certification of appliances, equipment, materials, constructions and systems to determine their relation to life, fire and property hazards as well providing inspection services.

Underwriters Laboratories of Canada is accredited as a Certification Organization, a Testing Organization, and an Inspection Body under the National Standards System of Canada.

ULC Standards develops and publishes standards and other related publications for building construction, security and burglar protection, environmental safety, electrical equipment, fire protection equipment, gas and oil equipment, thermal insulation products, materials and systems, energy use in the built environment and electrical utility safety.

ULC Standards is a not-for-profit organization and is accredited by the Standards Council of Canada as a Standards Development Organization.

National Standards of Canada developed by ULC Standards conform to the criteria and procedures established by the Standards Council of Canada. Such standards are prepared using the consensus principle by individuals who provide a balanced representation of interests relevant to the subject area on a national basis.

ULC is represented across Canada as well as many countries worldwide. For further information on ULC services, please contact:

Customer Service: 1-866-937-3852

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.

CORPORATE HEADQUARTERS

Underwriters Laboratories of Canada
7 Underwriters Road
Toronto, Ontario M1R 3A9
Telephone: (416) 757-3611
Fax: (416) 757-9540

REGIONAL OFFICES

PACIFIC OFFICE

13775 Commerce Parkway, Suite 130
Richmond, British Columbia V6V 2V4
Telephone: (604) 214-9555
Fax: (604) 214-9550

EASTERN OFFICE

6505, Rte Transcanadienne, Suite 330
St-Laurent, Québec H4T 1S3
Telephone: (514) 363-5941
Fax: (514) 363-7014

For further information on ULC standards, please contact:

ULC STANDARDS

171 Nepean Street, Suite 400
Ottawa, Ontario K2P 0B4
Telephone: (613) 755-2729

To purchase ULC Standards, visit: www.ulc.ca/ulcstandards

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 this 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 FACTORY-BUILT FIREPLACE SYSTEMS

ICS 91.060.40; 97.100.30



First Edition.....	April 1987
Amended.....	October 1991
Amended.....	June 1993
Amended.....	March 1994
Amended.....	June 1996
Amended.....	May 1997
Reaffirmed.....	February 2016
SECOND EDITION	JULY 2018

Copyright © 2018

ULC Standards

All rights reserved. No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior permission.

TABLE OF CONTENTS

ULC STANDARDS COMMITTEE ON FACTORY-BUILT FIREPLACES, CHIMNEYS AND VENTS	..I
ULC STANDARDS SUBCOMMITTEE ON SOLID FUEL APPLIANCES	..II
PREFACE	..III
1 SCOPE	1
2 REFERENCE PUBLICATIONS	1
3 GLOSSARY	2
4 COMPLIANCE	3
5 INSTRUCTIONS	3
5.1 INSTALLATION INSTRUCTIONS	3
5.2 USE AND MAINTENANCE INSTRUCTIONS	6
6 CONSTRUCTION	8
6.1 MATERIALS	8
6.2 ASSEMBLY	10
6.3 JOINTS	11
6.4 FIRESTOP-SPACERS	11
6.5 SUPPORTS	12
6.6 RADIATION SHIELDS	12
6.7 ATTIC INSULATION SHIELDS	13
6.8 FIREPLACE FLUE DAMPERS	13
6.9 CAPS	14
6.10 ROOF ASSEMBLIES	14
6.11 CHIMNEY ASSEMBLY TERMINATION	14
6.12 FIRE SCREENS	15
6.13 HEARTH	15
6.14 OUTDOOR COMBUSTION AIR INLET	15
6.15 DOORS	15
7 PERFORMANCE	15
7.1 GENERAL	15
7.2 TEST INSTALLATIONS	16
7.3 TEMPERATURE MEASUREMENT	19
7.4 TEST NO. 1 - THERMAL SHOCK	23
7.5 TEST NO. 2 - TEMPERATURE - CREOSOTE BURNOUT	23
7.6 TEST NO. 3 - TEMPERATURE - RADIANT FIRE	24
7.7 TEST NO. 4 - TEMPERATURE - BRAND FIRE	26
7.8 TEST NO. 5 - TEMPERATURE - FLASH FIRE	27
7.9 TEST NO. 6 - ROUGH USAGE	28
7.10 TEST NO. 7 - SUPPORT	28
7.11 TEST NO. 8 - STRENGTH	28

7.12	TEST NO. 9 - WIND LOAD	30
7.13	TEST NO. 10 - RAIN AND CONDENSATION	30
7.14	TEST NO. 11 - CRUSHING OF NONMETALLIC CHIMNEY LININGS	32
7.15	TEST NO. 12 - RESISTANCE TO ACTION OF ACIDS OF NONMETALLIC CHIMNEY LININGS	32
7.16	TEST NO. 13 - FREEZING AND THAWING OF NONMETALLIC MATERIALS ABSORBING WATER	33
7.17	TEST NO. 14 - CEMENTED JOINTS OF CHIMNEYS	33
7.18	TEST NO. 15 - SULPHURIC ACID EXTRACTION FOR PORCELAIN COATED STEEL USED FOR CHIMNEYS	33
7.19	TEST NO. 16 - CONDENSING SULPHUR DIOXIDE	34
7.20	TEST NO. 17 - IMPACT OF GLASS COMPONENTS	34
7.21	TEST NO. 18 - VIBRATION (INSULATED CHIMNEYS)	35
7.22	TEST NO. 19 - ACCELERATED CORROSION	35
7.23	TEST NO. 20 - ATTIC INSULATION SHIELD VENTILATION OPENING	35
8	MARKING	36
	TABLES	39
	FIGURES	41
	APPENDIX A (NORMATIVE) OUTDOOR FIREPLACES	84

ULC STANDARDS COMMITTEE ON FACTORY-BUILT FIREPLACES, CHIMNEYS AND VENTS

Name	Representing	Interest Category	Region
J. Wade (Chair)	ULC Standards	Chair - Non-voting	Canada
J. Brania	Underwriters Laboratories Inc.	Testing and Standards	United States
M. Brunt	Flexmaster Canada Ltd.	Producer	Canada
M. Byle	Stove Parlour and Gallery Inc.	User	Ontario
Q. Choudry	Office of the Ontario Fire Marshal	Regulator	Ontario
E. Dufour	Security Chimneys International Ltd.	Producer	Canada
G. Faber	SCM Risk Management Services	General	Canada
Z. Gadomski	Wood Energy Technicians of British Columbia	User	Canada
M. Harwood	iv3Cus/iv3 Solutions	General	Canada
J. Herald	J & D Herald Consulting Inc.	General	Canada
M. Hladysh	Selkirk Canada Corp	Producer	Canada
M. Kulik	Technical Standards & Safety Authority	Regulator	Ontario
E. Lamy	I.C.C. Industrial Chimney Company Inc.	Producer	Canada
A. Marcakis	Association des professionnels du chauffage (APC)	User	Quebec
M. Murat	Hearth, Patio and Barbecue Association Canada	Producer	Canada
B. Zeigler	Intertek Testing Services	Testing and Standards	United States
L. Gill	IPEX	Associate - non-voting	Canada
S. Scott	Royal Pipe	Associate - non-voting	Canada
G. Wintonic	ULC Standards	Project Manager- Non-voting	Canada

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.

ULC STANDARDS SUBCOMMITTEE ON SOLID FUEL APPLIANCES**MEMBER****REPRESENTING**

L. CôtéSBI International
Z. GadowskiWood Energy Technicians of British Columbia
J. Herald.....J & D Herald Consulting Inc.
M. Hladysh.....Selkirk Canada Corp
M. Murat.....Hearth, Patio and Barbecue Association of Canada (HPBAC)
G. Yoshida.....Office of the Ontario Fire Marshal

STANDARD FOR FACTORY-BUILT FIREPLACE SYSTEMS

PREFACE

This is the Second Edition of the Standard for Factory-Built Fireplace Systems, CAN/ULC-S610.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Factory Built Fireplaces, Chimneys and Vents.

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.

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.

The Second Edition National Standard of Canada is based on, and 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-S610 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 On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com/canada>.

This Standard is intended to be used for conformity assessment.

