ULC Standards
Normes ULC

JOINT CANADA-UNITED STATES
NATIONAL STANDARD

ANSI/CAN/UL/ULC 2115:2024

STANDARD FOR SAFETY

Processed Solid-Fuel Firelogs and Firestarters

Approved American National Standard
ANSI
ANSI/UL 2115-2024

scc ccn

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.

UL Standard for Safety for Processed Solid-Fuel Firelogs and Firestarters, ANSI/CAN/UL/ULC 2115

Fourth Edition, Dated November 7, 2017

Summary of Topics

This revision of ANSI/CAN/UL/ULC 2115 dated January 8, 2024 is issued to correct the ANSI approval date on the titlepage of the English version of this Standard only. No changes were required to the French version of this standard.

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.

No Text on This Page

ANSI/UL 2115-2024

NOVEMBER 7, 2017
(Title Page Reprinted: January 8, 2024)

ANSI/CAN/UL/ULC 2115:2024

Standard for Processed Solid-Fuel Firelogs and Firestarters

First Edition – February, 1999
Second Edition – November, 2007
Third Edition – October, 2015

Fourth Edition

November 7, 2017

This ANSI/CAN/UL/ULC Standard for Safety consists of the Fourth edition including revisions through January 8, 2024.

The most recent designation of ANSI/UL 2115 as a Reaffirmed American National Standard (ANS) occurred on February 24, 2023. 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 date February 24, 2023.

No Text on This Page

CONTENTS

No Text on This Page

Preface

This is the Fourth Edition of the Standard for Processed Solid-Fuel Firelogs and Firestarters, ANSI/CAN/UL/ULC 2115.

ULSE is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO). ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and 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.

Appendix A, identified as Informative, is for information purposes only.

This ANSI/CAN/UL/ULC 2115 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and 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.

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.

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 http://csds.ul.com.

Attention is drawn to the possibility that some of the elements of this joint Canadian and American 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 Edition of the Standard has been formally approved by the UL Standards Technical Panel (STP) on Solid Fuel Appliances, STP 127.

This list represents the STP 127 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

STP 127 Membership

Name	Representing	Interest Category	Region
E. Adair	Hearth Patio & Barbecue Association	General Interest	USA
J. Brania	UL Solutions	Testing and Standards Org	USA
I. Brodzinski	UL Standards & Engagement	Project Manager – Non-voting	USA
J. Buckley	Buckley Rumford CO	Supply Chain	USA
G. Bures	Bures Consultants, Inc.	General Interest	USA
K. Bush	Office of the Maryland State Fire Marshal	AHJ	USA
L.P. Cote	SBI International	Producer	Canada
N. Dawe	County Of Cobb	AHJ	USA
E. Dufour	Security Chimneys International Ltd.	Producer	Canada
R. Dimmitt	Chimney Safety Institute Of America	General Interest	USA
J. Freeman	AEI Corp	General Interest	USA
D. Freeman	Freeman Fire Inspectors, Ltd.	Commercial/Industrial Users	USA
Z. Gadomski	WETBC	Commercial/Industrial Users	Canada
E. Grandy	Grandy & Associates	General Interest	USA
R. Harper	Hearthman Specialties	General Interest	USA
K. Kalakay	State of Michigan	AHJ	USA
T. Mcnulty	US Draft CO	Producer	USA
K. Reasoner	Kozy Heat Fireplaces	Producer	USA
M. Romanow	Innovative Hearth Technologies	Producer	USA
M. Savage	Marion County, FL	AHJ	USA
B. Schwock	New Buck Corporation	Producer	USA
P. Stegmeir	P B S & Associates	General Interest	USA
J. Steinert	PFS TECO	Testing and Standards Organization	USA
J. Voorhees	United States Stove Company	Producer	USA
J. Wade	ULC Standards	Chair - Non-voting	Canada
G. Yates	Chimney Sweep LLC	General Interest	USA
B. Ziegler	Intertek	Testing and Standards Org	USA

International Classification for Standards (ICS): 75.160.10, 27.190

For information on ULSE Standards, visit http://www.shopulstandards.com, call toll free 1-888-853-3503 or email us at ClientService@shopULStandards.com.

This Standard is intended to be used for conformity assessment.

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.

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

INTRODUCTION

1 Scope

1.1 These requirements cover processed solid-fuel firelogs that are intended for use as an alternative fuel in factory-built fireplaces and masonry fireplaces.

1.2 These requirements also cover processed solid-fuel fire starters, with a volatile fuel content not exceeding 75 % of the total fuel content, intended for use in factory-built fireplaces, solid-fuel burning appliances, fireplace inserts and masonry fireplaces.

2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

3 Reference Publications

3.1 See Annex A for a list of publications referenced in this standard. Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard. When the latest edition of a standard is not applicable, the appropriate edition is indicated accordingly in Annex A.

4 Glossary

4.1 Solid Fuel Firelog – Residential fuel consisting of solid combustible materials, with or without solid or liquid binders, which have been processed into pieces of generally cylindrical configuration, being more or less uniform size, shape and composition.

4.2 Solid Fuel Fire Starter – Solid combustible materials, with or without solid or liquid binders, which have been processed into pieces of more or less uniform size, shape and composition where the volatile fuel content does not exceed 75% of the total fuel content.

5 Compliance

5.1 Solid fuel firelogs shall comply with the requirements of the following Sections of this Standard:

A Section 6 – Aging Test;

B Section 7 – Spontaneous Heating Test;

C Section 8 – Heat Release Rate Calorimeter Test; and

D Section 9 – Marking – Firelogs.

5.2 Solid fuel fire starters shall comply with the requirements of the following Sections of this Standard:

A Section 6 – Aging Test;

B Section 7 – Spontaneous Heating Test;

C Section 8 – Heat Release Rate Calorimeter Test;

D Section 10 – Ignition and Burn Test;

E Section 11 – Liquid Residue Test;

F Section 12 – Vapour Hazard;

G Section 13 – Flash Fire;

H Section 14 – Properties Analysis; and

I Section 15 – Marking – Firestarters.

PERFORMANCE – FIRELOGS AND FIRESTARTERS

6 Aging Test

6.1 The processed solid-fuel firelog/firestarter shall remain intact and show no visible signs of degradation after being subjected to the test described in 6.2 and 6.3.

6.2 Four firelogs/firestarters are to be placed in a full draft circulating air oven at a temperature of 70°C (158°F) for 60 days.

6.3 The firelogs/firestarters are to be removed from the oven after 60 days and visually examined for degradation such as cracking, brittleness, or crumbling.

7 Spontaneous Heating Test

7.1 There shall be no evidence of spontaneous heating of the firelog/firestarter material when tested in accordance with 7.2 – 7.4. The firelogs/firestarters used for this test shall be previously conditioned as described in the Aging Test, Section 6.

7.2 The apparatus used for the Spontaneous Heating Test is to consist of a vertical, cylindrical test chamber, 178 mm (7 inches) in height and 102 mm (4 inches) in diameter, surrounded at the side and bottom by an electrically heated water bath. The test chamber is to be provided with a cover having two air vent tubes and an opening for introduction of a thermocouple or a maximum registering thermometer. The representative firelog/firestarter is to be contained within the test chamber by a cylinder of wire gauze, 152 mm (6 inches) in height and 38 mm (1-1/2 inches) in diameter. The cylinder is to be concentric with the axis of the test chamber and annular space through air of 32 mm (1-1/4 inch) is to exist between the cylinder and the wall of the chamber.

7.3 A minimum 74 g (2.6-oz) crumbled segment from the middle of a firelog/firestarter is to be prepared. The segment is to consist of fine particles not larger than 10 mm (3/8 inch) in diameter. The segment is to be loosely placed into the cylinder as described in 7.2, with cheesecloth used to close the bottom. The cylinder is then to be placed in the test chamber and a thermocouple is to be inserted at the center of the segment. The cover is then to be placed on the chamber, and the water bath surrounding the chamber is to be maintained at boiling for a period of 24 h.

7.4 A rise in temperature of the segment above the ambient temperature of the water bath under the conditions of the test indicates spontaneous heating of the product.

8 Heat Release Rate Calorimeter Test

8.1 Using the method described in 8.2 – 8.4, the Heat Release Rate (HRR) of the processed solid-fuel firelog/firestarter shall be determined. The Peak Average HRR of the firelog/firestarter shall not be greater than 35.4 kW (2015 Btu/min).

8.2 A representative processed solid-fuel firelog/firestarter is to be conditioned to a constant mass at an ambient temperature of 23 ±3°C (73.4 ±5.4°F) and a relative humidity of 50 ±5 %. The ambient temperature in the test area is to be greater than 16°C (60°F) and the relative humidity is to be less than 75 % prior to the start of the test.

8.3 The tests are to be conducted under an oxygen consumption calorimeter as shown in Figure 8.1. The representative processed solid-fuel firelog/firestarter is to be placed on a metal stand 0.9 m (36 inches) below the center of the collection hood. The stand is to be constructed of a grid consisting of 12.7 mm (1/2-inch) diameter steel bars, space according to Table 8.1, with side supporting legs. A 140 mm (5-3/8-inch) inside diameter (I.D.) petri dish filled with 100 ml (3.4 oz) of denatured isopropyl alcohol is to be used as an ignition source, and is to be located under the center of the firelog/firestarter.

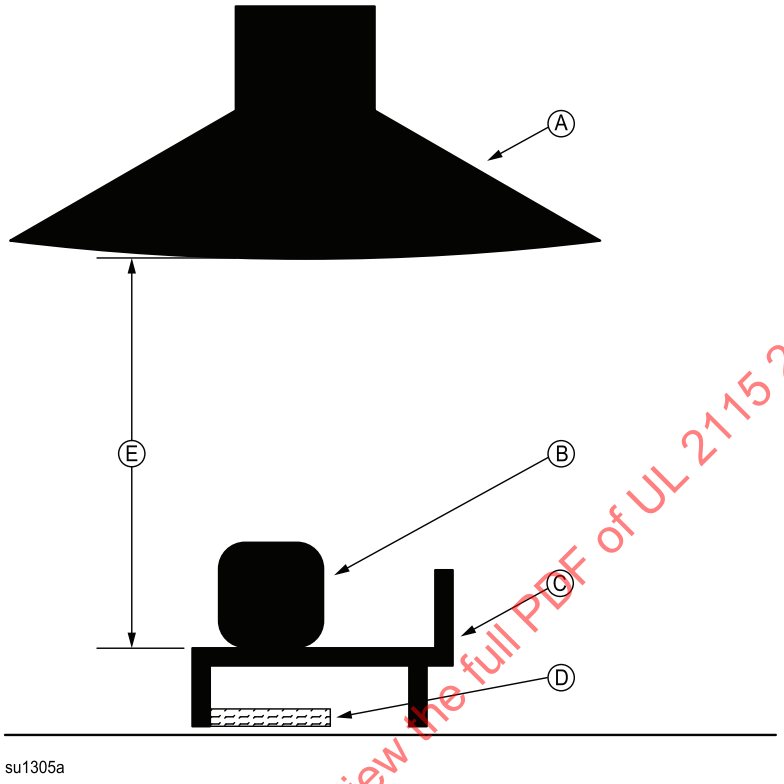
8.4 One processed solid-fuel firelog/firestarter is to be placed on the metal stand in accordance with the manufacturer's instructions and the alcohol is to be ignited. The fire is to burn until flaming combustion ceases. The peak 1 min interval Average HRR and the peak 10 min interval Average HRR are to be calculated using the measurements obtained from the oxygen consumption calorimeter. These measurements are to be taken starting 8 min after the ignition of the alcohol in the petri dish so that the alcohol fuel source is completely consumed and the measured Heat Release value is solely that produced by the burning log.

Table 8.1
Metal stand bar spacing

Firelog/Firestarter length, mm (inches)	Quantity of supporting bars	Supporting bar on-center spacing, mm (inches)
≥ 381 mm (≥ 15 inches)	3	178 mm (7 inches)
229 to 375 mm (9 to 14.75 inches)	2	178 mm (7 inches)
102 to 229 mm (4 to 9 inches)	2	51 mm (2 inches) less than firelog/firestarter length

Figure 8.1

Test set-up to determine the heat release rate



A Oxygen consumption calorimeter

B Firelog/firestarter

C Metal Stand

D 100 ml (3.4 oz) denatured isopropyl alcohol in a 140 mm (5 3/8 inch) inside diameter petri dish

E 0.9 m (36 in)

MARKINGS – FIRELOGS

9 Firelog Marking and Instructions

9.1 Each firelog wrapper shall be printed with the manufacturer's name and address, and shall include the following wording:

PROCESSED SOLID FUEL FOR USE IN LISTED FACTORY-BUILT FIREPLACES

COMBUSTIBLE SOLIDE PRÉFABRIQUÉ POUR UNE UTILISATION DANS LES FOYERS PRÉFABRIQUÉS INSCRITS

9.2 Each wrapper shall include the following or equivalent markings and safety instructions:

a) Directions For Lighting:

1) Open the fireplace damper.

2) Pull end seams of wrapper outward carefully. (Do not tear wrapper.)

3) Create an air space between the body of the wrapper and the log by carefully pulling outward on the seam.

Exception: For firelogs that have a grooved surface, item (3) is not required

4) Place log (use only one) at the rear of the fireplace on supporting grate with arrows pointing downward and seam facing room. Light the seam below each arrow.

b) CAUTION – Risk of Fire:

1) Do not use flammable liquids or gas log lighter to ignite log.

2) Poking or breaking up a burning firelog can cause the firelog to become extremely flammable.

3) Do not poke burning log with fireplace tools. Flaming particles may stick to tools.

4) Do not place wood or other items on firelogs.

5) To extinguish firelogs in an emergency use dry chemical fire extinguisher or carefully douse fire with water.

6) Do not close fireplace damper until ashes are cool.

7) Do not use in wood stoves or barbecues.

8) Do not use for cooking.

c) Safety Instructions:

1) Open fireplace damper before lighting log.

2) Burn firelog on supporting grate to rear of fireplace.

3) Burn ONLY ONE LOG at a time and never add anything to an existing firelog fire.

4) Close wire mesh protective fire screen when burning firelog.