NATIONAL
STANDARD
OF CANADA

CAN/ULC-S112.2:2007-R2016
(Reaffirmed 2016)

STANDARD METHOD OF FIRE TEST OF CEILING FIRESTOP FLAP ASSEMBLIES

Prepared and Published by:

ULC Standards
Normes ULC

Approved by:

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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 this particular application.

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

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NATIONAL STANDARD OF CANADA

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ICS 13.220.50; 91.060.30

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Standards Council of Canada
Conseil canadien des normes

First Edition . . . . . January 1984
Second Edition . . . . . October 2007
REAFFIRMED . . . . . APRIL 2016

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TABLE OF CONTENTS

ULC COMMITTEE ON FIRE TESTS I
REFERENCE PUBLICATIONS III
PREFACE 1
1. SCOPE 2
2. CONSTRUCTION 2
3. TESTS 3
4. FIRE ENDURANCE 3
4.1 TEST ASSEMBLIES 3
4.2 CONTROL AND CONDUCT OF FIRE TESTS 4
4.3 CONDITIONS OF ACCEPTANCE 5
5. CLOSING RELIABILITY TEST 5
6. DUST LOADING TEST 6
7. SALT-SPRAY EXPOSURE TEST 6
8. CORROSION RESISTANCE 6
8.1 ZINC COATINGS 6
8.2 CADMIUM COATINGS 8
9. SPRING CLOSING FORCE TEST 9
10. TEST REPORT 9
TABLES 11
FIGURES 18
APPENDIX A (INFORMATIVE) 22
A1 FURNACE CONTROL 22

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REFERENCE PUBLICATIONS

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

- A313/A313M-03, Standard Specification for Stainless Steel Spring Wire
- E11-04, Standard Specification for Wire Cloth and Sieves for Testing Purposes

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7 Underwriters Road, Toronto, ON M1R 3B4 Canada
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- CAN/ULC-S101-07, Standard Methods of Fire Endurance Tests of Building Construction and Materials
- ULC-S505, Standard for Fusible Links for Fire Protection Service

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STANDARD METHOD OF FIRE TEST OF CEILING FIRESTOP FLAP ASSEMBLIES

PREFACE

This is the Reaffirmation of the Second Edition of the Standard Method of Fire Test of Ceiling Firestop Flap Assemblies, CAN/ULC-S112.2.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Fire Tests.

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.

Appendix A, identified as Informative, is for information 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.

The Second Edition of this National Standard of Canada has been reaffirmed.

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.

The review and action to revise or reaffirm this Standard will not exceed 5 years from the date of publication, unless the Standard is identified as fitting within a stabilized category, whereby the review will commence within the appropriate time frame set out by ULC Standards.

This Standard is intended to be used for conformity assessment.

1. SCOPE

1.1 These requirements cover the test procedure for the performance evaluation of ceiling firestop flap assemblies which may or may not be part of an air diffusion device, intended for use in fire resistive floor-ceiling and roof-ceiling assemblies.

1.2 The purpose of the fire endurance test procedure which follows, is to supply information that may be used to compare the ability of a submitted ceiling firestop flap assembly to retard the transmission of heat to that of a "standard" ceiling firestop flap assembly. For the purposes of this document a "standard" ceiling firestop flap assembly shall be constructed as illustrated in Figure 1. Should it be necessary to evaluate other aspects of the intended performance of a submitted ceiling firestop flap assembly, it may be required that the submitted unit be incorporated in a full scale floor and ceiling assembly and tested in accordance with CAN/ULC-S101, Standard Methods of Fire Endurance Tests of Building Construction and Materials.

2. CONSTRUCTION

2.1 Ceiling firestop flap assemblies shall be constructed so as to provide an effective barrier to heat transmission in the closed position.

2.2 Pins, hinges and latches used in the assembly of a ceiling firestop flap shall be of material having resistance to atmospheric corrosion equivalent to brass or bronze.

2.3 Component springs used in the assembly of a ceiling firestop flap shall be of material having spring properties equivalent to stainless steel conforming to ASTM A313, Standard Specification for Chromium - Nickel Stainless and Heat-Resisting Steel Spring Wire.

2.4 Steel parts used in the assembly shall be provided with one of the following corrosion-protection systems:

A Employing stainless steel having resistance to corrosion at least equal to the 300 series of stainless steel;

B Coating of zinc capable of withstanding not less than two dips in a standard copper sulphate solution;

C Coating of cadmium not less than 10 µm thick;

D Two coats of good quality finish of the alkyd-resin type or other type outdoor paint. The suitability of the paint shall be determined by corrosion tests.

2.5 Coated or uncoated metals used in the assembly of ceiling firestop flaps shall not be used in combination such as to cause detrimental galvanic action which will adversely affect the function of any part of the assembly formed from such material.

2.6 A fusible link or other temperature-responsive device shall conform to the performance requirements of ULC-S505, Standard for Fusible Links for Fire Protection Service, except that such requirements may be modified if appropriate for the particular application.