CAN/ULC-S711.1:2019 (R2023)

BEAD-APPLIED TWO COMPONENT POLYURETHANE AIR SEALANT FOAM, PART 1: MATERIAL SPECIFICATION

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Standard for Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification, CAN/ULC-S711.1

Third Edition, Dated June 26, 2019

Summary of Topics

The revision of CAN/ULC-S711.1 dated August 11, 2023 is being issued to update the title page to reflect the reaffirmation of this Third 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 June 1, 2023.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD.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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BEAD-APPLIED TWO COMPONENT POLYURETHANE AIR SEALANT FOAM, PART 1: MATERIAL SPECIFICATION

ICS 91.100.50; 91.120.10

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PREFACE

This is the Third Edition of the Standard for Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification, CAN/ULC-S711.1.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Thermal Performance and Energy Use in the Built Environment.

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

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

Annexes A and B, identified as normative, form a mandatory part of this Standard.

Annexes C and D, identified as informative, are 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 Third Edition National Standard of Canada is based on, and now supersedes, the Second 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-S711.1 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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INTRODUCTION

1 Scope

1.1 This Standard specifies the requirements and test methods for bead-applied two- component polyurethane foam used as an air sealant for building applications. The materials covered under this Standard may be applied on a building site or in a prefabrication (manufacturing) process.

1.2 This Standard does not address the requirements for this material to be used as a thermal insulation or as fire blocking material.

1.3 The components for the two-component polyurethane air sealant foam are supplied in a pre-packaged, pressurized system.

1.4 The requirements in this Standard apply only to the use of bead-applied two component polyurethane air sealant foam when the continuous service temperature is in the range of -60 °C to +80 °C.

1.5 The test methods used to determine the material properties provide a means of comparing different polyurethane air sealant foams. They are intended for use in specifications, product evaluations and quality control. They are not intended to predict end use product performance.

1.6 Two-component bead-applied air sealant polyurethane foams are closed cell materials which are installed to a maximum bead size cross section of 100 mm.

1.7 This document does not purport to address all the health and safety aspects associated with its use. Anyone using this Standard has the responsibility to consult the appropriate authorities and to establish health and safety practices, in conjunction with any existing applicable regulatory requirements, prior to its use.

2 Reference Publications

2.1 2.1. The following referenced documents are indispensable for the application of this Standard. The referenced documents indicate the edition and/or revision of the document that shall be used with this ULC Standard.

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

• ASTM C390-08(R2013), Standard Criteria for Sampling and Acceptance of Preformed Thermal Insulation Lots.
• ASTM D618-13, Standard Practice for Conditioning Plastics for Testing.
• ASTM D1622/D1622M-14, Standard Test Method for Apparent Density of Rigid Cellular Plastics.
• ASTM D1623-17, Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics.
• ASTM D2126-15, Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging.
• ASTM D6226-15, Standard Test Method for Open-Cell Content of Rigid Cellular Plastics.
• ASTM E283-04(R2012), Standard Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.
• ASTM E514/514M-14a, Standard Test Method for Water Penetration and Leakage through Masonry.
• ASTM E2178-13, Air Permeance of Building Materials.

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178 Rexdale Blvd., Toronto, ON M9W 1R3 Canada
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• AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS – North American Fenestration Standard/Specification for windows, doors and skylights.
• CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights.
• CSA A440.4-07(R2016), Window, door, and skylight installation.

Documents Published by International Organization for Standardization (ISO) available from:

ISO Central Secretariat: International Organization for Standardization (ISO)
BIBC II Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland
Telephone: +41 22 749 01 11; Fax: +41 22 733 34 30
www.iso.ch

Standards Council of Canada (SCC)
55 Metcalfe Street, Suite 600
Ottawa, ON K1P 6L5
Telephone: (613) 238-3222; Fax (613) 569-7808
www.scc.ca

• ISO 12576-1:2001, Thermal Insulation – Insulating Materials and Products for Buildings – Conformity Control Systems – Part 1: Factory Made Products.

Documents Published by ULC Standards
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada
Telephone: (613) 755-2729
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• CAN/ULC-S102-10, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.
• CAN/ULC-S773-15, Standard for Thermal Insulation Terminology.
• CAN/ULC-S774-09(R2014), Standard Laboratory Guide for the Determination of Volatile Organic Compound Emissions from Polyurethane Foam.

3 Terms and Definitions

3.1 Introduction

3.1.1 Defined terms used in this Standard appear in italics throughout the text. Definitions common to ULC Thermal Insulation Standards are given in CAN/ULC-S773, and some of these have been listed below with a (CAN/ULC-S773) identifier. Additional definitions not listed in CAN/ULC-S773 but required for this Standard have also been listed below.

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