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## **STANDARDS BULLETIN 2018-13**

NEW EDITION

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### **Eighth Edition of CAN/ULC-S102:2018**

#### **STANDARD METHOD OF TEST FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS AND ASSEMBLIES**

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ULC Standards is pleased to announce the publication of the Eighth Edition of CAN/ULC-S102:2018, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies. This Standard has been approved by the ULC Standards Committee on Fire Tests and has been published under the date of June 2018.

This new edition includes revision to the Scope of the standard to specify that the Flame Spread Rating (FSR) and the Smoke Developed Classification (SDC) determined is applicable to the materials and assemblies as tested; an update to the Referenced Standards; clarification regarding test specimen preparation; modifications to the requirements on the mounting methods under Appendix A (i.e. for plastics, tape, pipes and tubings, plastic fittings and valves) including the addition of requirements to address adhesives, sealants & caulking materials, and insulated pipes, tubings, plastic fittings & valves.

This method of test for surface burning characteristics of building materials is applicable to any type of building material that, by its own structural qualities or the manner in which it is applied, is capable of supporting itself in position or may be supported in the test furnace as described in this Standard (see Appendix A) or in a manner comparable to its recommended use.

The following materials shall be tested and classified in accordance to CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies:

A Materials which cannot be tested as described in Clause 1.1 without the use of supporting material that is not representative of the intended installation;

B Materials which, when tested in the manner described in Clause 1.1, melts or drips, or otherwise disintegrates and continues to burn on the floor of the test chamber;

C Materials designed for use in a relatively horizontal position with only its top surface exposed to air; or

D Thermoplastic materials.

For material with a low thermal inertia which demonstrate anomalous behaviour in the test chamber (see Clause 9.2.4), the materials shall additionally be tested in accordance with CAN/ULC-S127, Standard Corner Wall Method of Test for Flammability Characteristics of Non-Melting Foam Plastic Building Materials. See Appendix C.

For multilayer or composite materials in which only the surface materials melts or drips during the test and the remainder of the test specimen remains self-supporting, one test is conducted with support and one test is conducted without support. An additional test in conformance with the requirements of CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies, shall be conducted. Triplicate testing shall then be conducted and reported using the method that produces the highest Flame Spread Value (FSV).

Where a material cannot be readily determined to be thermoplastic or thermoset, one test is conducted in accordance with this standard and one additional test in conformance with requirements of CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies. Triplicate testing shall then be conducted and reported using the method that produces the highest FSV.

The primary purpose of the test is to determine the comparative burning characteristics of the material or assembly under test by evaluating the flame spread over its surface when exposed to a test fire and thus establish a basis on which surface burning characteristics of different materials or assemblies may be compared, without specific considerations of all the end use parameters that might affect these characteristics.

Smoke Developed Value (SDV) and Flame Spread Value (FSV) are recorded in this test. However, there is not necessarily a relationship between these two measurements.

It is the intent of this method to register performance during the period of exposure, and not to determine suitability for use after the test exposure.

This method does not establish standards of performance for specific applications. It is a means of evaluating the response of materials, products or assemblies to a particular fire exposure under controlled laboratory conditions.

The Flame Spread Rating (FSR) and the Smoke Developed Classification (SDC) determined by this Standard shall be restricted to the application of applicable to the materials and assemblies as tested. See Appendix A for specific mounting methods for various materials and assemblies.

This Standard can be ordered for \$250.00 CAD (Hardcopy) or \$200.00 CAD (PDF) from the ULC Standards website at <http://canada.ul.com/ulcstandards/>. Click on *Sales of ULC Standards Materials* for more information.

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