



UL 723

STANDARD FOR SAFETY

Test for Surface Burning Characteristics of Building Materials

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UL Standard for Safety for Test for Surface Burning Characteristics of Building Materials, UL 723

Eleventh Edition, Dated April 19, 2018

Summary of Topics

This New Edition for the Standard for Safety for Test for Surface Burning Characteristics of Building Materials, UL 723, has been issued to include the Heptane Representative Curve.

Text that has been changed in any manner or impacted by UL'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 February 9, 2018.

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UL 723

Standard for Test for Surface Burning Characteristics of Building

Materials

First Edition – August, 1950
Second Edition – October, 1958
Third Edition – August, 1960
Fourth Edition – January, 1971
Fifth Edition – December, 1977
Sixth Edition – November, 1983
Seventh Edition – April, 1993
Eighth Edition – July, 1996
Ninth Edition – August, 2003
Tenth Edition – September, 2018

Eleventh Edition

April 19, 2018

This ANSI/UL Standard for Safety consists of the Tenth Edition, including revisions through April 19, 2018.

The most recent designation of ANSI/UL 723 as an American National Standard (ANSI) occurred on April 19, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 This method of test for surface burning characteristics of building materials is applicable to any type of building material that, by its own structural quality or the manner in which it is applied, is capable of supporting itself in position or being supported in the test furnace to a thickness comparable to its intended use.

1.2 The purpose of the test is to determine the comparative burning characteristics of the material under test by evaluating the spread of flame over its surface and the density of the smoke developed when exposed to a test fire, and thus to establish a basis on which surface burning characteristics of different materials are compared, without specific regard to all the end-use parameters that affect the surface burning characteristics.

1.3 This method of test is intended to register performance during the period of exposure, and not to determine suitability for use after the test exposure. Reference the requirements in the Standard for Fire Tests of Building Construction and Materials, UL 263, for procedures for determining the performance, under fire exposure conditions, of building constructions and materials when incorporated into a test structure and subjected to a standard exposing fire of controlled extent and severity.

2 General

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

2.2 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.

PERFORMANCE

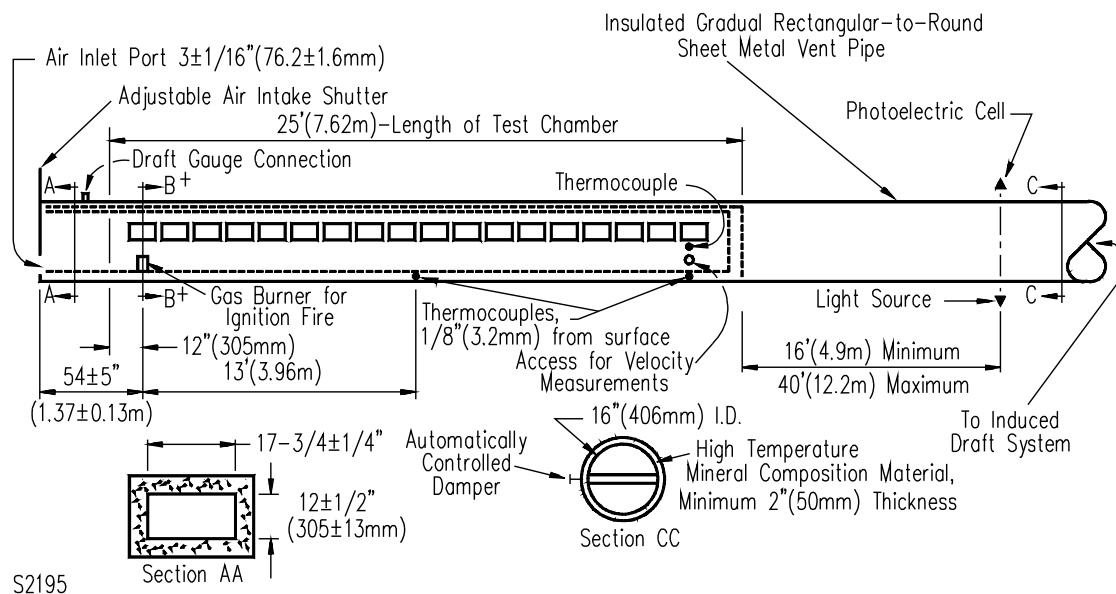
3 Fire Test Chamber

3.1 The fire test chamber, Figures 3.1 and 3.2, is to consist of a horizontal duct having an inside width of $17\text{-}3/4 \pm 1/4$ in (451 ± 6.3 mm) measured at the ledge location along the side walls and $17\text{-}5/8 \pm 3/8$ in (448 ± 9.5 mm) at all other points; (2) a depth of $12 \pm 1/2$ in (305 ± 12.7 mm) measured from the bottom of the test chamber to the ledge of the inner walls on which the sample is supported [including the 1/8-in (3.2-mm) thickness of woven fiberglass^a gasketing tape], and a length of 25 ft (7.6 m). The sides and base of the duct are to be lined with insulating firebrick as illustrated in Figure 3.2. The insulating firebrick shall comply with 3.2. One side of the chamber is to be provided with double observation windows^b with the inside pane flush mounted (see Figure 3.2). The exposed area of an inside pane is to be $2\text{-}3/4 \pm 1/4$ by 11.5 plus 1 minus 2 in (69.9 ± 6.4 by 279 plus 25 minus 50 mm). The centerline of the exposed area of the inside glass is to be in the upper half of the furnace wall, with the upper edge not less than 2-1/2 in (63 mm) below the furnace ledge. Each window is to be located such that not less than 12 in (305 mm) of the specimen width is observable. Multiple windows are to be located along the tunnel so that the entire length of the test sample is observable from outside the fire test chamber. The windows are to be pressure tight (see 5.2 and 5.3).

^aMcMaster-Carr No. 8817K35 1-1/2 by 1/8-in woven fiberglass tape or equivalent works for this purpose.

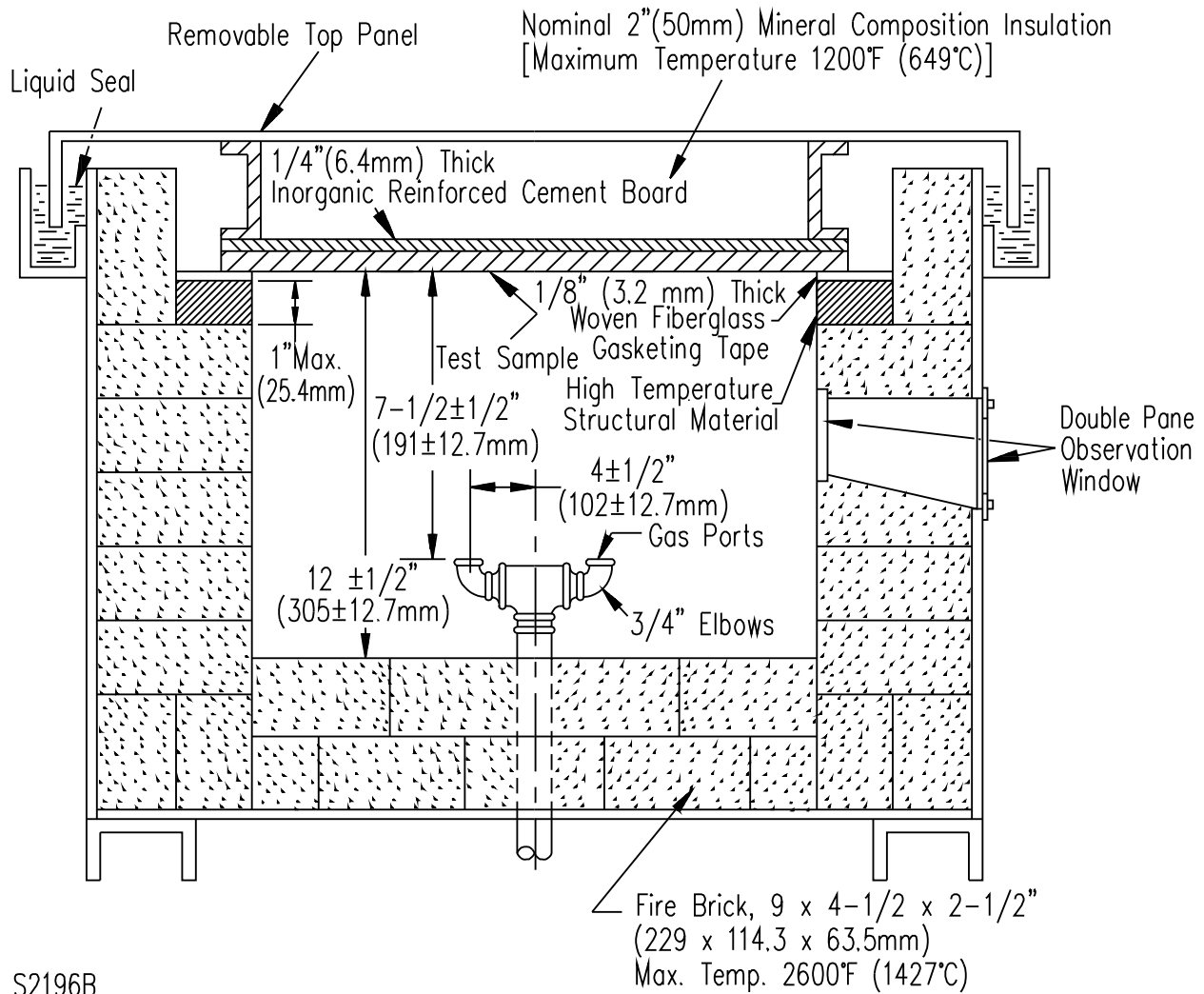
^bVycor, 100% silica glass, nominal 1/4-in (6.4-mm) thick or equivalent, works for the inside pane. Pyrex glass, nominal 1/4-in thick or equivalent, works for the outer pane.

Figure 3.1
Details of test furnace



+ – See Figure 3.2 for Section BB

Figure 3.2
Section BB



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