§ 1630.2 Scope and application.

(a) This Standard provides a test method to determine the surface flammability of carpets and rugs when exposed to a standard small source of ignition under carefully prescribed draft-protected conditions. It is applicable to all types of carpets and rugs used as floor covering materials regardless of their method of fabrication or whether they are made of natural or synthetic fibers or films, or combinations of or substitutes for these.

(b) One of a kind, carpet or rug, such as an antique, an Oriental, or a hide, may be excluded from testing under this Standard pursuant to conditions established by the Consumer Product Safety Commission.

§ 1630.3 General requirements.

(a) Summary of test method. This method involves the exposure of each of eight conditioned, replicate specimens of a given carpet or rug to a standard igniting source in a draft-protected environment, and measurement of the proximity of the charred portion to the edge of the hole in the prescribed flattening frame.

(b) Test criterion. A specimen passes the test if the charred portion does not extend to within 2.54 cm. (1.0 in.) of the edge of the hole in the flattening frame at any point.

(c) Acceptance criterion. At least seven of the eight specimens shall meet the test criterion in order to conform with this Standard.

§ 1630.4 Test procedure.

(a) Apparatus—(1) Test chamber. The test chamber shall consist of an open top hollow cube made of noncombustible material\(^1\) with inside dimensions 30.48 × 40.48 × 30.48 cm. (12 × 16 × 12 in.) and a minimum of 6.35 (¼ in.) wall thickness. The flat bottom of the box shall be made of the same material as the sides and shall be easily removable.

\(^1\) 6.35 mm (¼ in.) cement asbestos board is a suitable material.

The sides shall be fastened together with screws or brackets and taped to prevent air leakage into the box during use.

NOTE: A minimum of two chambers and two extra bottoms is suggested for efficient operation.

(2) Flattening frame. A steel plate, 22.86 × 22.86 cm. (9 × 9 in.), 6.35 mm. (¼ in.) thick with a 20.32 cm. (8 in.) diameter hole in its center is required to hold the carpet or rug flat during the course of the test. It is recommended that one be provided for each test chamber.

(3) Standard igniting source. A methenamine tablet, flat, with a nominal heat of combustion value of 7180 calories/gram, a mass of 150 mg ±5 mg and a nominal diameter of 6mm. These tablets shall be stored in a desiccator over a desiccant for 24 hours prior to use. (Small quantities of absorbed water may cause the tablets to fracture when first ignited. If a major fracture occurs, any results from that test shall be ignored, and it shall be repeated.)

(4) Test specimens. Each test specimen shall be a 22.86 × 22.86 cm. (9 × 9 in.) section of the carpet or rug to be tested. Eight specimens are required.

(5) Circulating air oven. A forced circulation drying oven capable of removing the moisture from the specimens when maintained at 105 °C. (221 °F.) for 2 hours.\(^2\)

(6) Desiccating cabinet. An airtight and moisture tight cabinet capable of holding the floor covering specimens horizontally without contacting each other during the cooling period following drying, and containing silica gel desiccant.

(7) Gloves. Nonhygroscopic gloves (such as rubber polyethylene) for handling the sample after drying, and raising the pile on specimens prior to testing.

(8) Hood. A hood capable of being closed and having its draft turned off during each test and capable of rapidly removing the products of combustion.