Designation: D 4723 – 99

Standard Index of and Descriptions of Textile Heat and Flammability Test Methods and Performance Specifications[1]

This standard is issued under the fixed designation D 4723; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This index provides reference tables of test methods and performance specifications used in the United States of America and Canada for measuring and describing the properties of textiles and textile products or assemblies in response to heat and flame under controlled laboratory conditions. Military specifications are not included in the listing. Related but separately published sampling plans are not included. Important criteria associated with each item listed is provided in tabular form.

1.2 The index in Tables 1-76 and identifies three categories:

1.2.1 *Category A*—Test methods and specifications limited to the textile product(s) for which the test method or specification, or both, were developed originally.

1.2.2 *Category B*—Test methods and specifications in which the textile product under evaluation is different from that identified with the original test method or specification, or both. The test method or specification, or both, may or may not have been modified from the corresponding material in the originating document.

1.2.3 *Category C*—Research test methods, specifications, and related documents designed to measure or describe the response of textiles to heat and flame under controlled laboratory conditions but not associated with either mandatory or voluntary conformance in connection with any specific textile end use.

1.2.3.1 Although some research test methods are not included, the listing is reasonably complete for textile items of commerce.

1.3 All published ASTM textile methods are included as well as methods useful for, but not necessarily intended exclusively for, textiles.

1.4 Some documents are included solely because they may be useful for reference or research purposes.

1.5 ASTM assumes no responsibility for the suitability of the listed test methods and performance specifications to describe or appraise the fire hazard of materials, products, or assemblies under actual fire conditions. Inclusion in this listing does not constitute endorsement by ASTM.

2. Referenced Documents

2.1 *ASTM Standards:*

D 123 Terminology Relating to Textiles[2]

D 4391 Terminology Relating to the Burning Behavior of Textiles[3]

3. Terminology

3.1 Definitions—For definitions of terms relating to burning behavior, refer to Terminology D 4391. For definitions of other textile terms, refer to Terminology D 123.

4. Significance and Use

4.1 The information indexed provides the user with the identification of test methods, performance specifications, and related documents pertaining to the flammability or response to heat of textiles. Enough information on each document is abstracted to allow a judgment as to the potential usefulness of the original method or specification.

5. Index of Documents

5.1 *USA Documents (Table 1)*:

5.1.1 *ASTM Standards*[4]:

	ID No.[4]
D 1230 Test Method for Flammability of Apparel Textiles	1
D 1518 Test Method for Thermal Transmittance of Textile Materials	2
D 2859 Test Method for Flammability of Finished Textile Floor Covering Materials	3
D 2863 Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)	4
D 3411 Test Methods for Flammability of Textile Materials	5
D 3659 Test Method for Flammability of Apparel Fabrics by Semi-Restraint Method	6
D 4108 Test Method for Thermal Protective Performance of Materials for Clothing by Open-Flame Method	7

[1] This index and description is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.52 on Flammability.

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[2] *Annual Book of ASTM Standards*, Vol 07.01.

[3] *Annual Book of ASTM Standards*, Vol 07.02.

[4] These identification numbers refer to the boldface identification numbers assigned each document.

	ID No.[4]
D 4151 Test Method for Flammability of Blankets	8
D 4372 Specification for Flame-Resistant Materials Used in Camping Tentage	9
D 4391 Terminology Relating to the Burning Behavior of Textiles	10
E 286 Test Method for Surface Flammability of Building Materials Using an 8-ft (2.44-m) Tunnel Furnace	11
E 662 Test Method for Specific Optical Density of Smoke Generated by Solid Materials	12
E 906 Test Method for Heat and Visible Smoke Release Rates for Materials and Products	13
F 501 Test Method for Aerospace Materials Response to Flame, With Vertical Test Specimen (For Aerospace Vehicles Standard Conditions)	14

5.1.2 *City and State Regulations*:

BFD IX-1 Classification Fire Test	15
Fire Dept. Advisory Safety Provisions: Office Furniture and Furnishings A) [FTMS 191 Method 5903 (modified)]; B) ASTM E84 (Tunnel Test) or C) ASTM E162-67 Radiant Panel Test	
Specification Governing the Flammability of Upholstery Material and Plastic Furniture 1) FTMS 191 Method 5903 (Modified) and 2) ASTM E84 and E162	17
Tech. Bull. 116 Requirements, Test Procedures and Apparatus for Testing the Flame Retardance of Upholstered Furniture	18
Tech. Bull. 117 Requirements, Test Procedures and Apparatus for Testing the Flame Retardancy of Resilient Filling Materials Used in Upholstered Furniture	19
Fire Dept. Advisory Safety Provisions: Office Furniture and Furnishings	20
Specification Governing the Flammability of Upholstery Materials and Plastic Furniture	21
Title 19 Flame-Retardant Chemicals and Fabrics	22
Tech. Bull. 133 Flammability Test Procedure for Seating Furniture for Use in High Risk and Public Occupancies	23

5.1.3 *Consumer Product Safety Commission (CPSC)*:

16 CFR 1610 Standard for the Flammability of Clothing Textiles (General Wearing Apparel)	24
16 CFR 1611 Standard for the Flammability of Vinyl Plastic Films (General Wearing Apparel)	25
16 CFR 1615 Standard for the Flammability of Children's Sleepwear: Sizes 0 Through 6X (FF 3-71)	26
16 CFR 1616 Standard for the Flammability of Children's Sleepwear: Sizes 7 Through 14 (FF 5-74)	27
16 CFR 1630 Standard for the Surface Flammability of Carpets and Rugs (FF 1-70)	28
16 CFR 1631 Standard for the Surface Flammability of Small Carpets and Rugs (FF 2-70)	29
16 CFR 1632 Standard for the Flammability of Mattresses (and Mattress Pads) (FF 4-72)	30
16 CFR 1633 *DRAFT* Proposed Standard for the Flammability (Cigarette Ignition Resistance) of Upholstered Furniture (PFF 6-81)	31

5.1.4 *Department of Transportation (DOT, FAA, and MVSS)*:

FAA 25.853 (a) and (b) Part 25-Airworthiness Standards: U.S. Transport Category Airplanes	32
FAA 25.853 (b-2) and (b-3) Part 25-Airworthiness Standards: U.S. Transport Category Airplanes	33
FAA 25.853 (a-1) Part 25-Airworthiness Standards: U.S. Transport Category Airplanes	34
MVSS302 Flammability of Interior Materials—Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses	35

5.1.5 *Federal Test Method Standards*:

FTMS 191A Test Method 5903 Flame Resistance of Cloth; Vertical	36

5.1.6 *Miscellaneous Trade and Industrial Associations (UFAC, BIFMA, and IFAI)*:

X.1 CPAI-84 Specification for Flame-Resistant Camping Tentage Materials	37
X.2 NFPA 701 Standard Methods of Fire Tests for Flame-Resistant Textiles and Films (as applied to Tents, Tarpaulin, and Other Protective Coverings)	38
X.2 NFPA 702 Standard for Classification of the Flammability of Wearing Apparel (as applied to Tents, Tarpaulin and other Protective Coverings)	39
UFAC 83 UFAC Test Methods-83 Six individual tests: Fabric Classification Test Method; Interior Fabrics Test Method; Barrier Test Method; Filling/Padding Component Test Method; Welt Core Test Method; Decking Materials Test Method (UFAC)	40
BIFMA F-1-78 First Generation Voluntary Upholstery Furniture. Flammability Standard for Business and Institutional Markets: A. Small Flame Ignition; B. Cigarette Ignition	41

5.1.7 *National Bureau of Standards (NBS)*:

Proposed Test Method for Heat Release Measurement by Oxygen Consumption	42
Test Method for the Assessment of the Acute Inhalation Toxicity of Combustion Products	43

5.1.8 *National Fire Protection Association (NFPA)*:

NFPA 253 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using Radiant Heat Energy Source	44
NFPA 260A Standard Method of Test and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture	45
NFPA 260B Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes	46
NFPA 701 Standard Methods of Fire Tests for Flame-Resistant Textiles and Films	47
NFPA 702 Flammability of Wearing Apparel	48
NFPA 1971 Protective Clothing for Structural Fire Fighting	49

5.1.9 *Underwriter's Laboratory (UL)*:

UL 964 Safety Standard for Electrically Heated Bedding	50

5.2 *Canadian Documents (Table 2)*:

5.2.1 *Canadian General Standards Board (CGSB)*:

CAN/CGSB–4.2 NO. 27–M82 Textile Test Methods Flame Resistance—Selection of Methods	1C
CAN/CGSB–4.2 NO. 27.1–M87 Textile Test Methods Flame Resistance—Vertical Burning Test	2C
CAN/CGSB–4.2 NO. 27.2–M87 Textile Test Methods Flame Resistance—Surface Burning Test	3C
CAN/CGSB–4.2 NO. 27.3–M86 ISO 6941–1984 Textile Test Methods—Burning Behaviour—Measurement of Flame Spread Properties of Vertically Oriented Specimens	4C
CAN/CGSB–4.2 NO. 27.4–M86 ISO 6940–1984 Textile Test Methods—Burning Behaviour—Determination of Ease of Ignition of Vertically Oriented Specimens	5C
CAN/CGSB–4.2 NO. 27.5–M87 Textile Test Methods—Flame Resistance—45° Angle Test—One Second Flame Impingement	6C
CAN/CGSB–4.2 NO. 27.6–M84 Textile Test Methods—Flame Resistance—Methenamine Tablet Test for Textile Floor Coverings	7C
CAN/CGSB–4.2 NO. 27.7–M82 Textile Test Methods Combustion Resistance of Mattresses—Cigarette Test	8C
CAN/CGSB–4.162–M80 Hospital Textiles—Flammability Performance Requirements	9C–13C
CAN/CGSB–4.175–M87 ISO 4880–1984 Burning behaviour of textiles and textile products—Vocabulary	14C

5.2.2 *Underwriter's Laboratory of Canada (ULC)*:

CAN4–S 102–M83 Textile Method for Surface Burning Characteristics of Building Materials and Assemblies	15C
CAN4–S 102.2–M83 Test Method for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials and Assemblies	16C

	ID No.[4]
CAN4–S 109–M80 Standards for Flame Tests of Flame Resistance Fabrics and Films	17C
CAN4–S 117.1–M80 Test Method for Flame Resistance—Methenamine Tablet Test for Textile Floor Coverings	18C

5.2.3 *Bureau de Normalisation du Québec (BNQ)*:

BNQ 7002–500 1982 Textiles—Flame Resistance—Vertical Burning Test	19C
BNQ 7002–510 1982 Textiles—Flame Resistance 45° Angle Test	20C
BNQ 7002–520 1982 Textiles—Flame Resistance—Rate of Burning	21C
BNQ 7002–530 1982 Textiles—Flame Resistance—Ease of Ignition	22C
BNQ 7002–580 1982 Textiles—Flame Resistance—Selection of Methods	23C
BNQ 7002–590 1982 Textile Burning Behaviour—Flame Resistance Classification	24C
BNQ 7002–595 1982 Textiles Burning Behaviour—Determination of Oxygen Index	25C

6. Keywords

6.1 angle test; burning behavior; burning rate; combustion; fire; flame resistant; flammability; heat release; horizontal test; ignition; oxygen index; radiant panel; semirestraint; smoke; thermal protective; toxicity; vertical test

TABLE 1 USA Flammability Test Methods and Performance Specifications

1 IDENTIFICATION NUMBER	1
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 1230 (Compare to 16 CFR 1610)
4 TITLE	Test Method for Flammability of Clothing Textiles
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	textile clothing and textiles intended for use in clothing
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	time of flame spread and notation of damage to the base of raised fiber surface fabrics
14 SIZE OF TEST SPECIMEN	2 by 6 in.
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	16-mm butane gas flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATIONS CRITERIA:	*Plain Surface Textiles:*
MINIMUM CONDITIONS TO PASS	*Class 1*—"Normal flammability"* is (a) average burn time of 3.5 s or more, (b) ignited but extinguished, (c) did not ignite. *Class 2*—Not applicable. *Class 3*—"Rapid and intense burning"* is average burn time of less than 3.5 s for 10 specimens. *Raised Fiber Surface Textiles:* *Class 1*—"Normal flammability"* is (a) average burn time of 0-7.0 s with less than 2 specimens of 10 burning the base fabric, (b) average burn time of more than 7.0 s for 5 to 10 specimens, (c) no burning of the base fabric, disregarding the average burn time for 5 specimens. *Class 2*—"Intermediate flammability"* is average burn time of 4.0-7.0 s for 5 or 10 specimens with 2 or more base burns. *Class 3*—"Rapid and intense burning"* is average burn time of less than 4.0 s and when more than 2 of the 10 specimens have base burns.

* Descriptive terms for these classes as used in 16 CFR 1610 (ID #24).

1 IDENTIFICATION NUMBER	2
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 1518
4 TITLE	Test Method for Thermal Transmittance of Textile Materials
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1985
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	single or layered fabrics within a specified range of thermal transmittance
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	overall thermal transmission coefficients including the time rate of heat transfer from a warm dry temperature to a cool atmosphere
14 SIZE OF TEST SPECIMEN	to accommodate the equipment, approx 20¼ in. by 20¼ in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	none
HEAT SOURCE	guarded hot plate
17 IGNITION TIME	none
18 PERFORMANCE SPECIFICATION CRITERIA:	none
MINIMUM CONDITIONS TO PASS	

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	3
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 2859 (see also section 16 CFR 1630 and 1631)
4 TITLE	Test Method for Flammability of Finished Textile Floor Covering Materials
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1976
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	finished textile floor covering materials
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	flammability of finished textile floor covering materials when exposed to an ignition source under controlled laboratory conditions (char length)
14 SIZE OF TEST SPECIMEN	9 by 9 in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	No. 1588 methenamine time-burning tablet
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	the charred area must not extend to within 1.0 in. of the edge of the hole in the prescribed flattening frame.

1 IDENTIFICATION NUMBER	4
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 2863
4 TITLE	Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1977
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	plastics (but useful in textiles)
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	minimum concentration of oxygen (in O_2/N_2 mix) to support combustion
14 SIZE OF TEST SPECIMEN	varies with material
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	match flame
HEAT SOURCE	none
17 IGNITION TIME	as required to ignite
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	decided by pretest agreement as to the maximum number of specimens burning at a specified oxygen level.

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	5
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 3411
4 TITLE	Test Methods for Flammability of Textile Materials
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1975T
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	textile materials
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards* (Discontinued 1981)
13 PROPERTIES MEASURED	ignition time and burning time
14 SIZE OF TEST SPECIMEN	3½by 4½ in. for ignition time; 2½ by 11 in. for burning time
15 ANGLE OF TEST SPECIMEN	62° from horizontal for ignition time; 45° for burning time
16 IGNITION SOURCE	methane gas, 15-mm flame for each property tested
HEAT SOURCE	none
17 IGNITION TIME	determine time to ignite or time to burn under specified conditions
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	none

1 IDENTIFICATION NUMBER	6
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 3659
4 TITLE	Test Method for Flammability of Apparel Fabrics by Semi-Restraint Method
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1980
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	apparel fabrics
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	burn time, mass loss, rate of area flame spread, and average destroyed area
14 SIZE OF TEST SPECIMEN	381 by 152 mm (15 by 6 in.)
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1.5-in. methane flame
HEAT SOURCE	none
17 IGNITION TIME	3.0 to 5.0 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	none

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	7
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 4108
4 TITLE	Test Method for Thermal Protective Performance of Materials for Clothing by Open-Flame Method
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	any fabric that is intended for use as clothing for protection against a short exposure to open flames
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	Heat energy transmitted through the fabric to a thermocouple as related to heat required to cause a second degree burn
14 SIZE OF TEST SPECIMEN	100 by 100 cm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	1.5-in. d, Fisher burner, propane flame 6-in. Burner Flame, propane, natural gas or Matheson B
HEAT SOURCE	none
17 IGNITION TIME	none
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	none

1 IDENTIFICATION NUMBER	8
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 4151
4 TITLE	Test Method for Flammability of Blankets
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	blankets
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	ignition or char of paper monitor
14 SIZE OF TEST SPECIMEN	2¾ by 2¾ in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	⅝-in. methane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	*Class I*—No paper monitor to burn, char, or discolor after exposure (suitable). *Class II*—If 1 or more paper monitors burn, char, or discolors after exposure (unsuitable).

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	9
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 4372 (See CPAI-84)
4 TITLE	Specification for Flame-Resistant Materials Used in Camping Tentage
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory in some states
9 DATE OF LATEST APPROVAL	1984
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	fabric and other pliable materials used in camping tentage flooring, and walls and tops. The materials are tested; unleached and unweathered; leached but unweathered; and weathered but unleached.
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	flooring: extent of damage spread. walls and tops: afterflame time; damage length; flame time of burning specimen droppings.
14 SIZE OF TEST SPECIMEN	flooring: 9 by 9 ± 1/16 in. walls and tops: 2¾ by 12 ± 1/16 in.
15 ANGLE OF TEST SPECIMEN	flooring: horizontal walls and tops: vertical
16 IGNITION SOURCE HEAT SOURCE	flooring: No. 1588 methenamine timed-burning tablet walls and tops: 12 ± 0.2 s none
17 IGNITION TIME	flooring: n/a walls and tops: 12 ± 0.2 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	flooring: no specimen may be damaged within 1.0 in. of the edge of the hole in the prescribed flattening frame. walls and tops: may not exceed the following: 1. Afterflame time of 2 s for all specimens 2. Avg. afterflame time of 2 s for all specimens 3. Damage lengths specified according to fabric weight 4. Zero flame time for burning specimen droppings

1 IDENTIFICATION NUMBER	10
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	D 4391
4 TITLE	Terminology Relating to the Burning Behavior of Textiles
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	no
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1984
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	all textiles
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	n/a
14 SIZE OF TEST SPECIMEN	n/a
15 ANGLE OF TEST SPECIMEN	n/a
16 IGNITION SOURCE	n/a
HEAT SOURCE	n/a
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	11
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	E 286
4 TITLE	Test Method for Surface Flammability of Building Materials Using an 8-ft (2.33-m) Tunnel Furnace
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1975
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	carpeting
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	flame spread index, fuel contribution, smoke density
14 SIZE OF TEST SPECIMEN	150 by 460 mm (6 by 18 in.)
15 ANGLE OF TEST SPECIMEN	60°
16 IGNITION SOURCE	gas/air mixture
HEAT SOURCE	none
17 IGNITION TIME	duration of test
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	none unless specified in a state code

1 IDENTIFICATION NUMBER	12
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	E 662
4 TITLE	Test Method for Specific Optical Density of Smoke Generated by Solid Materials
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1979
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	carpeting, etc.
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	Specific optical density of smoke generated from flaming and non-flaming combustion
14 SIZE OF TEST SPECIMEN	76.2 by 76.2 mm (3 by 3 in.)
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	six-tube burner and radiant heat furnace
HEAT SOURCE	none
17 IGNITION TIME	until the minimum light transmittance value is reached + 3 min.
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	13
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	E 906
4 TITLE	Test Method for Heat and Visible Smoke Release Rates for Materials and Products
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	any materials or products
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	rate of heat and smoke release
14 SIZE OF TEST SPECIMEN	150 by 150 mm (max. thickness 100 mm) vertical 100 by 150 mm (max. thickness 45 mm) horizontal
15 ANGLE OF TEST SPECIMEN	vertical and horizontal
16 IGNITION SOURCE	special pilot burners using specified gases
HEAT SOURCE	radiant heat source, flux up to 100 kW/m^2 using 4 silicon carbide elements
17 IGNITION TIME	10 min., or less if heat and smoke release ceases sooner
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

1 IDENTIFICATION NUMBER	14
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	F 501
4 TITLE	Test Method for Aerospace Materials Response to Flame, with Vertical Test Specimen (For Aerospace Vehicles Standard Conditions)
5 SPONSORING ORGANIZATION	ASTM
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	1984
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	materials or constructions used in aerospace vehicle interiors
12 SOURCE OF PUBLICATION	*Annual Book of ASTM Standards*
13 PROPERTIES MEASURED	flame time, glow time, drip flaming time, and burn length
14 SIZE OF TEST SPECIMEN	2¾ by 12 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. flame, Matheson Type B gas, flame temperature controlled to 1550°F (843°C) minimum
HEAT SOURCE	none
17 IGNITION TIME	variable, depending on applicable material specifications
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	15
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BFD IX-1
4 TITLE	Classification Fire Test
5 SPONSORING ORGANIZATION	Boston Fire Dept.
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	May 16, 1986
10 GOVERNMENT LEVEL MANDATING	city
11 DESCRIPTION OF TEXTILES COVERED	upholstery, curtains, drapes, fabric wall coverings used in public assemblies
12 SOURCE OF PUBLICATION	Boston Fire Prevention Code, Articles VII, IX, and XXXI
13 PROPERTIES MEASURED	afterflame time, afterglow, flame propagation length
14 SIZE OF TEST SPECIMEN	4 by 12 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	propane gas held at 45° from horizontal
HEAT SOURCE	6-in. total flame; 1.5-in. blue cone
	none
17 IGNITION TIME	10 s
18 PERFORMANCE SPECIFICATION CRITERIA:	Afterflame: 2 s max; 10 s max, if non-propagating for upholstery fabrics
MINIMUM CONDITIONS TO PASS	
	Flame propagation: 6 in. max
	Propagation afterglow time: 40 s max
	Non-propagation afterglow time: 80 s max

1 IDENTIFICATION NUMBER	16
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	none
4 TITLE	Fire Dept. Advisory Safety Provisions: Office furniture and furnishings A) [FTMS 191 Method 5903 (modified)]; B) ASTM E84, (Tunnel Test) or C) ASTM E162-67 Radiant Panel Test
5 SPONSORING ORGANIZATION	New York Board of Standards and Appeals
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1964
10 GOVERNMENT LEVEL MANDATING	city
11 DESCRIPTION OF TEXTILES COVERED	cover fabrics, lining webbing, cushioning padding
12 SOURCE OF PUBLICATION	Bulletin #44 of the New York City Board of Standards and Appeals
13 PROPERTIES MEASURED	Test #A—Upholstery fabric char length, afterflame time, afterglow time, flaming melt drip; Test #B—Padding flame propagation index
14 SIZE OF TEST SPECIMEN	2 by 12½ in.; padding ½in.
15 ANGLE OF TEST SPECIMEN	vertical; horizontal
16 IGNITION SOURCE	1½-in. Bunsen burner flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA:	A—Afterflame time: max avg. 3 s
MINIMUM CONDITIONS TO PASS	Afterglow time: max avg. 20 s
	B—Flame propagation index: not to exceed 100

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	17
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	none (Uses Test Methods FTMS 191 Method 5903 (Modified) ASTM E 84, and E 162)
4 TITLE	Specification Governing the Flammability of Upholstery Material and Plastic Furniture 1) FTMS 191 Method 5903 (Modified) and 2) ASTM E 84 and E 162
5 SPONSORING ORGANIZATION	The Port Authority of New York and New Jersey
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	1974
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	upholstery materials for furniture used in places of public assembly
12 SOURCE OF PUBLICATION	Fire Safety Office, The Port Authority of New York and New Jersey
13 PROPERTIES MEASURED	Test 1)—Upholstery fabric: char length, afterflame time, flaming melt drip time Test 2)—Padding flame propagation index
14 SIZE OF TEST SPECIMEN	2 by 12½ in.; padding 2 in.
15 ANGLE OF TEST SPECIMEN	1) Vertical 2) Horizontal
16 IGNITION SOURCE	1) 1½ in. flame 2) flame radiant heat
HEAT SOURCE	none
17 IGNITION TIME	1) 12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	1) average char length not to exceed 8 in.; average flame time not to exceed 15 s; flaming melt drip not to exceed 5 s 2) flame propagation index not to exceed 100

1 IDENTIFICATION NUMBER	18
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	State of California Technical Bulletin #116
4 TITLE	Requirements, Test Procedures and Apparatus for Testing the Flame Retardance of Upholstered Furniture
5 SPONSORING ORGANIZATION	state
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	1980
10 GOVERNMENT LEVEL MANDATING	State of California
11 DESCRIPTION OF TEXTILES COVERED	upholstery materials for furniture used in places of public assembly
12 SOURCE OF PUBLICATION	State of California, Dept. of Consumer Affairs; Bureau of Home Furnishings
13 PROPERTIES MEASURED	Part I or finished chair char length Part II—Mock up Test
14 SIZE OF TEST SPECIMEN	I) full chair II) PFF6-76 component test specimen, size 22 × 27 in. maximum
15 ANGLE OF TEST SPECIMEN	horizontal and/or parallel to crevice
16 IGNITION SOURCE	smoldering cigarette
HEAT SOURCE	none
17 IGNITION TIME	entire length burn; entire cigarette length burn
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	maximum char length of any specimen shall not exceed 2 in. from cigarette in any direction. Same criteria as above but requires 90 % weight retention

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	19
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	Technical Bulletin #117, State of California, Uses Test Methods Sect. A Fed. Std. FTMS 191 Method 5903; Sect. B FTMS 191 Method 5903; Sect. C 16 CFR 1610 (CS-191-53); Sect. D Calif. Bureau of Home Furnishing Test; Sect. E
4 TITLE	Requirements, Test Procedures and Apparatus for Testing the Flame Retardancy of Resilient Filling Materials Used in Upholstered Furniture
5 SPONSORING ORGANIZATION	State of California
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory (California)
9 DATE OF LATEST APPROVAL	1980
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	furniture components
12 SOURCE OF PUBLICATION	State of California, Dept. of Consumer Affairs; Bureau of Home Furnishings
13 PROPERTIES MEASURED	*Sec. A*—Resilient cellular materials, after glow char length, after flame; Part II shredded material weight loss; Part III polystyrene beads weight loss *Sec. B*—Non-man-made filling, char length after flame, after glow; Part II loose filling weight loss *Sec. C*—Man-made filling materials; Average and min. flame spread *Sec. D*—Resilient filling, Part I—char length; Part II—weight loss *Sec. E*—Fabrics flame spread
14 SIZE OF TEST SPECIMEN	12 by 2 by 12 in.; 13 by 13 in.; 3 by 8 in.; 12 by 3 by 1 in.; 6 by 3 in.; 12 by 12 in.; 7.25 by 8 by 2 in.; 2 by 6 in.
15 ANGLE OF TEST SPECIMEN	vertical; horizontal; horizontal; vertical (not in order); bottom, 75°; horizontal; horizontal parallel to; 45°
16 IGNITION SOURCE	1.5 in. flame, flame radiant heat, cigarette
HEAT SOURCE	none
17 IGNITION TIME	12 s; 12 s; 90 s; 3 and 12 s; 12 s; 5 s; entire cigarette; 1 s.
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	Average char length of all specimens not to exceed 6 in. Maximum char length of any individual specimen not to exceed 8 in. Average afterflame and flaming melt drip not to exceed 5 s. Maximum char length and flaming melt drip of any individual not to exceed 10 s. Average afterflame time not to exceed 15 s, 5 % max weight loss limit. Performance specs. same as Section A. Maximum 5 % weight loss. Average flame spread of all specimens shall not be less than minimum flame spread time of any individual specimen shall not be less than 7 s. Maximum char length of any specimen shall not exceed 2 in. from cigarette in any direction. All test specimens greater than 80 % residue—passes 2 or more test specimens 80 %—fail 1 specimen 90 % retest. *Flame Spread Time* (1) 3.5 s or more for flat fabric. (2) 7 s or more permitted rapid surface flash which does not ignite or fuse the base fabric for raised fiber surface fabrics or, 4 to 7 s when the base fabric ignites or fuses.

1 IDENTIFICATION NUMBER	20
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	none
4 TITLE	Fire Dept. Advisory Safety Provisions: Office Furniture and Furnishings
5 SPONSORING ORGANIZATION	New York City Board of Standards and Appeals
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	April 1981
10 GOVERNMENT LEVEL MANDATING	city
11 DESCRIPTION OF TEXTILES COVERED	curtains and drapes; public assemblies
12 SOURCE OF PUBLICATION	Bulletin #44 of the New York Board of Standards and Appeals
13 PROPERTIES MEASURED	afterflame time
14 SIZE OF TEST SPECIMEN	2 by 12½ in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	Afterflame time: max avg. 3 s Afterglow time: max avg. 20 s

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	21
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	none (Uses FTMS 191 Method 5903)
4 TITLE	Specification Governing the Flammability of Upholstery Materials and Plastic Furniture
5 SPONSORING ORGANIZATION	The Port Authority of New York and New Jersey
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1981
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	curtains and drapes; public assemblies
12 SOURCE OF PUBLICATION	Fire Safety Office, The Port Authority of New York and New Jersey
13 PROPERTIES MEASURED	char length; afterflame time; flaming melt drip time
14 SIZE OF TEST SPECIMEN	2¾ by 12 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA:	Char length: max avg. 8 in.
MINIMUM CONDITIONS TO PASS	Afterflame time: max avg. 15 s
	Individual flaming melt drip time: 5 s max

1 IDENTIFICATION NUMBER	22
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	California Adm. Code Title 19
4 TITLE	Title 19 Flame-Retardant Chemicals and Fabrics
5 SPONSORING ORGANIZATION	California Fire Marshal
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1962
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	curtains and drapes
12 SOURCE OF PUBLICATION	State Fire Marshal California
13 PROPERTIES MEASURED	1) Small Scale Test—afterflame time, char length
	2) Large Scale Test—afterflame time, char length
14 SIZE OF TEST SPECIMEN	1) 2.5 by 12.5 in.
	2) 5 by 84 in.
15 ANGLE OF TEST SPECIMEN	verticle
16 IGNITION SOURCE	1) 1.5-in. flame
	2) 11-in. flame
HEAT SOURCE	none
17 IGNITION TIME	12 s; 2 min.
18 PERFORMANCE SPECIFICATION CRITERIA:	1) Afterflame time: 2 s max
MINIMUM CONDITIONS TO PASS	Average char length: 3½ in. max
	Individual max char length: 6 in.
	2) Afterflame time: 2 s max
	Char length: 42 in. max

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	23
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	Technical Bulletin No. 133
4 TITLE	Flammability Test Procedure for Seating Furniture for Use in High Risk and Public Occupancies
5 SPONSORING ORGANIZATION	State of California, State and Consumer Services Agency, Bureau of Home Furnishings
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	May 1984
10 GOVERNMENT LEVEL MANDATING	n/a
11 DESCRIPTION OF TEXTILES COVERED	full scale seating furniture or mock up
12 SOURCE OF PUBLICATION	State of California, Dept. of Consumer Affairs, 3485 Orange Grove Ave., North Highlands, CA 95660
13 PROPERTIES MEASURED	increase in test room temperature, smoke opacity, carbon monoxide generated, furniture weight loss
14 SIZE OF TEST SPECIMEN	as used on the piece of furniture or mock up
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	5 double sheets of loosely wadded newsprint contained in an ignition box, ignited 1 in. above the seat surface
HEAT SOURCE	none
17 IGNITION TIME	until all combustion ceases, or a test criteria has been exceeded
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	failure if any of the following criteria are exceeded: A) 300°F or greater at 4 ft thermocouple B) 150°F or greater at 4 ft thermocouple C) Greater than 75 % opacity at 4 ft smoke monitor D) Greater than 50 % opacity at floor smoke monitor E) Carbon monoxide in excess of 1000 ppm. F) Greater than 10 % weight loss in first 10 min of the test

1 IDENTIFICATION NUMBER	24
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1610 (formerly CS 191-53)
4 TITLE	Standard for the Flammability of Clothing Textiles (General Wearing Apparel)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	clothing and textiles intended for clothing except hats, gloves, footwear, and interlining fabrics
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	rate of flame spread, ease of ignition
14 SIZE OF TEST SPECIMEN	2 by 6 in.
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	⅝-in. butane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	*Plain Surface Textiles:* *Class 1*—"Normal flammability" is (a) average burn time of 3.5 s or more, (b) ignited but extinguished, (c) did not ignite. *Class 2*—Not applicable. *Class 3*—"Rapid and intense burning" is average burn time of less than 3.5 s for 10 specimens or for as many of them as burn. *Raised Fiber Surface Textiles:* *Class 1*—"Normal flammability" is (a) average burn time of 0–7 s with less than 2 specimens of 10 burning the base fabric, (b) average burn time of 7 s for 5 or 10 specimens, (c) no burning of the base fabric, disregarding the average burn time for 5 specimens. *Class 2*—"Intermediate flammability" is average burn time of 4–7 s for 5 or 10 specimens with 2 or more base burns. *Class 3*—"Rapid and intense burning" is average burn time of less than 4 s for 10 specimens with 2 or more base burns.

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	25
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1611 (formerly CS 192-53)
4 TITLE	Standard for the Flammability of Vinyl Plastic Films (General Wearing Apparel)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	nonrigid, unsupported, vinyl plastic film of 10 mils or less in thickness, including, translucent, and opaque material, whether plain, embossed, molded, or otherwise surface treated film intended for or used in clothing.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	Burn rate
14 SIZE OF TEST SPECIMEN	3 by 9 in.
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	½-in. butane flame
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	an average burn rate for both the lengthwise and crosswise-direction specimens not exceeding 1.2 in./s.

1 IDENTIFICATION NUMBER	26
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1615 (FF3-71)
4 TITLE	Standard for the Flammability of Children's Sleepwear: Sizes 0 Through 6X (FF 3-71)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	any product of wearing apparel size 0 through 6X, such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping. Underwear and diapers are excluded from this definition.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	extent of flame spread
14 SIZE OF TEST SPECIMEN	3½ by 10 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. 97 % methane flame
HEAT SOURCE	none
17 IGNITION TIME	3.0 ± 0.2 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	an average char length of 7.0 in. or less, no individual specimen with char length of 10 in. (25.4 cm)

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	27
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1616 (FF5-74)
4 TITLE	Standard for the Flammability of Children's Sleepwear: Sizes 7 Through 14 (FF5-74)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	any product of wearing apparel (including trim) size 7 through 14, such as nightgowns, pajamas, or similar or related items, such as robes, intended to be worn primarily for sleeping or activities related to sleeping. Underwear and diapers are excluded from this definition.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	extent of flame spread, measured if no afterglow is observed, extinguish after 1 min. then measure char length
14 SIZE OF TEST SPECIMEN	3.5 by 10 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. 97 % methane flame
HEAT SOURCE	none
17 IGNITION TIME	3.0 ± 0.2 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	an average char length of 7.0 in. or less; no individual specimen with char length of 10 in. (25.4 cm)

1 IDENTIFICATION NUMBER	28
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1630 (FF1-70)
4 TITLE	Standard for the Surface Flammability of Carpets and Rugs (FF 1-70)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	all types of carpets and rugs (one dimension greater than 6 ft and surface area greater than 24 ft^2) used as floor covering materials regardless of the method of fabrication or whether they are made of natural or synthetic fibers or films, or combinations of or substitutes for these. One-of-a-kind carpets or rugs, such as antique, Oriental, or hide, are excluded.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	extent of flame spread and char spread
14 SIZE OF TEST SPECIMEN	9 by 9 in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	methenamine timed-burning tablet
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	For at least 7 of the 8 specimens, the charred area must not extend to within 1.0 in. of the edge of the hole in the prescribed flattening flame. Refurbishing required if a carpet or rug has had fire-retardant treatment or is made of fibers having a fire-retardant treatment. Temporary suspension of refurbishing treatments for carpets and rugs containing alumina trihydrate in the backing.

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	29
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1631 (FF2-70)
4 TITLE	Standard for the Surface Flammability of Small Carpets and Rugs (FF 2-70)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory, unless labeled as follows:" FLAMMABLE (Fails U.S. Dept. of Commerce Standard FF2-70): should not be used near sources of ignition."
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	all types of small carpets and rugs (no dimension greater than 6 ft and surface area not greater than 24 ft^2) 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. One-of-a-kind small carpets or rugs such as antique, Oriental, or hide, are excluded.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	extent of flame spread and char spread
14 SIZE OF TEST SPECIMEN	9 by 9 in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	methenamine timed-burning tablet
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	For at least 7 of the 8 specimens, the charred area must not extend to within 1.0 in. of the edge of the hole in the prescribed flattening frame. Refurbishing is required if the small carpet or rug has had a fire-retardant treatment, or is made of fibers which have had a fire-retardant treatment.

1 IDENTIFICATION NUMBER	30
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	16 CFR 1632 (FF4-72)
4 TITLE	Standard for the Flammability of Mattresses (and Mattress Pads) (FF 4-72)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 1, 1985
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	mattresses including, but not limited to, mattress pads, adult, youth, crib, bunk-bed, convertible sofa-bed, daybed, roll-a-way bed, and trundle-bed mattresses. Sleeping bags, pillows, box springs, water beds, upholstered furniture lounges, and juvenile product pads are excluded.
12 SOURCE OF PUBLICATION	Code of Federal Regulations, Commercial Practices, 16 Part 1000 to End, January 1, 1985
13 PROPERTIES MEASURED	tease of ignition from smoldering ignition source
14 SIZE OF TEST SPECIMEN	mattress unit or prototype
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	18 lighted cigarettes, that is, a total of 9 cigarettes on the smooth tape edge, and quilted or tufted locations of a bare mattress, and 9 cigarettes placed between two sheets on the mattress surfaces described above
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	mattress passes if none of the cigarette locations has a char length greater than 2.0 in. in any direction from the nearest point of the cigarette

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	31
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	Draft 16 CFR 1633 (Similar to PFF6-81, BIFMA 178, and NFPA 260B)
4 TITLE	Draft Proposed Standard for the Flammability (Cigarette Ignition Resistance) of Upholstered Furniture (PFF 6-81)
5 SPONSORING ORGANIZATION	Consumer Product Safety Commission (CPSC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1981
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	upholstery fabrics and upholstered furniture intended for use in homes, offices, or other places of assembly or accommodation, including juvenile furniture. Inflatable furniture, mattresses, historic reproduction pieces, and chair with upholstered seat and back and/or sides in which back and/or sides are not within 1 in. of the seat cushion are excluded
12 SOURCE OF PUBLICATION	draft has not been published
13 PROPERTIES MEASURED	ease of ignition from smoldering ignition source
14 SIZE OF TEST SPECIMEN	upholstery fabric specimens are 12 by 8 in., 8 by 8 in., 12 by 12 in.; mockup or upholstered furniture unit
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE HEAT SOURCE	lighted cigarettes—3 cigarettes placed on each surface type, covered with sheeting square
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITI0NS TO PASS	*Mock up Test:* (1) No obvious flaming ignition (2) No char length more than 3 in. *Fabric Classification Test:* Fabric Class A–B Fiberglas Char length—1.5 in. or less retest Class A—Cotton char length—1.5 in. or less Class B—Cotton Char length—1.5 in. or greater Class C—Fiberglas char length—1.5 to 3.0 in. Class D—Fiberglas char length—3.0 in. or greater

1 IDENTIFICATION NUMBER	32
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	FAA 25.853 (a) and (b) vertical
4 TITLE	Part 25-Airworthiness Standards: U.S. Transport Category Airplanes
5 SPONSORING ORGANIZATION	Federal Aviation Administration, Dept. of Transportation
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	May 10, 1982
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	25.853a—Aircraft interior; ceiling, wall panels, etc. 25.853b—Floor coverings, draperies, upholstery, etc.
13 SOURCE OF PUBLICATION	Title 14 Code of Federal Regulations Part 25
13 PROPERTIES MEASURED	char length, afterflame time and drip-burn time
14 SIZE OF TEST SPECIMEN	exposed area 2 by 12 in. (both warp and fill direction)
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½-in. flame (1550° F)
HEAT SOURCE	none
17 IGNITION TIME	25.853 a: 60 s 25.853 b: 12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	Char length average, max.: a) 6.0 in. b) 8.0 in. Afterflame time average max.: a) 15 s b) 15 s Drip-burn time average, max.: a) 3 s b) 5 s

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	33
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	FAA 25.853 (b-2) and (b-3) Horizontal
4 TITLE	Part 25-Airworthiness Standards: U.S. Transport Category Airplanes
5 SPONSORING ORGANIZATION	Federal Aviation Administration, Dept. of Transportation
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	May 10, 1972
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	Aircraft interiors, cargo and baggage compartments 25.853 (b-2) Seat Belts, shoulder harness, tie downs 25.853 (b-3) any other materials
12 SOURCE OF PUBLICATION	Title 14 Code of Federal Regulations Part 25
13 PROPERTIES MEASURED	burn rate
14 SIZE OF TEST SPECIMEN	4 by 14 in. both warp and fill directions
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	1½ in. flame (1550°F)
HEAT SOURCE	none
17 IGNITION TIME	15 s
18 PERFORMANCE SPECIFICATION CRITERIA:	25.853 (b-2) 2½ in. per min. avg. max rate of burn
MINIMUM CONDITIONS TO PASS	25.853 (b-3) 4.0 in. per min. avg. max rate of burn

1 IDENTIFICATION NUMBER	**34**
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	FAA 25.853 (a-1) 45° angle
4 TITLE	Part 25-Airworthiness Standards: U.S. Transport Category Airplanes
5 SPONSORING ORGANIZATION	Federal Aviation Administration, Dept. of Transportation
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	May 10, 1972
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	cargo or baggage compartment liner
12 SOURCE OF PUBLICATION	Title 14 Code of Federal Regulations Part 25
13 PROPERTIES MEASURED	flame time, glow time, flame penetration of specimen
14 SIZE OF TEST SPECIMEN	2 by 6 in.
15 ANGLE OF TEST SPECIMEN	45° from horizontal, face down
16 IGNITION SOURCE	Bunsen or Tirrill Burner, 1.5 in. flame
HEAT SOURCE	none
17 IGNITION TIME	30 s
18 PERFORMANCE SPECIFICATION CRITERIA:	Flame time, avg., max 15 s
MINIMUM CONDITIONS TO PASS	Glow time, avg., max 10 s No flame penetration of specimen

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	35
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	MVSS302 (Motor Vehicle Safety Standards)
4 TITLE	Flammability of Interior Materials—Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses
5 SPONSORING ORGANIZATION	U.S. Department of Transportation
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory
9 DATE OF LATEST APPROVAL	January 8, 1971
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	automotive interiors
12 SOURCE OF PUBLICATION	Title 49 Code of Federal Regulations Part 571
13 PROPERTIES MEASURED	horizontal burn rate
14 SIZE OF TEST SPECIMEN	4 by 14 in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	1½-in. natural gas flame
HEAT SOURCE	none
17 IGNITION TIME	15 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	burn rate of not more than 4.0 in./min or should self-extinguish before burning 2 in. past start of timing zone

1 IDENTIFICATION NUMBER	36
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	Federal Test Method Standard 191A Test Method 5903.1
4 TITLE	Flame Resistance of Cloth; Vertical
5 SPONSORING ORGANIZATION	U.S. Army Natick Research and Development Center
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	December 28, 1989
10 GOVERNMENT LEVEL MANDATING	federal
11 DESCRIPTION OF TEXTILES COVERED	any textile, but primarily for flame resistant fabrics
12 SOURCE OF PUBLICATION	General Services Administration, Specifications Activity, Printed Materials Supply Division, Building 197, Naval Weapons Plant, Washington, DC 20407
13 PROPERTIES MEASURED	char length; afterflame time; afterglow time
14 SIZE OF TEST SPECIMEN	3 in. (76 mm) by 12 in. (305 mm)
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	1½ in. tirrill or bunsen burner flame (methane gas, 99 % pure)
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	none

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	**37**
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	X.1 CPAI-84
4 TITLE	Specification for Flame-Resistant Camping Tentage Materials
5 SPONSORING ORGANIZATION	Industrial Fabrics Association International (IFAI)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory in some states
9 DATE OF LATEST APPROVAL	1980
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	awnings, canopies, tarpaulins, and temporary tentage, and permanent air and tension supported structures
12 SOURCE OF PUBLICATION	CPAI and several state regulations (Summarized in CPAI Fire Code Handbook, Vol. 1)
13 PROPERTIES MEASURED	Test 1: Walls and tops: char length, afterflame time, drip burn time Test 2: Flooring materials: char length
14 SIZE OF TEST SPECIMEN	Test 1: 2¾ by 12.0 in. Test 2: 9.0 by 9.0 in.
15 ANGLE OF TEST SPECIMEN	Test 1: Vertical Test 2: Horizontal
16 IGNITION SOURCE	Test 1: Matheson Type B gas (Vertical) Test 2: Methenamine time-burning tablet (Horizontal)
HEAT SOURCE	none
17 IGNITION TIME	Test 1: 12 ± 0.2 s Test 2: n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	*Test 1:* Avg. afterflame time of specimens 2 s No specimens shall exceed 4 s afterflame time No specimen drip shall flame on tester floor *Char Length:*

Fabric Wt. oz/yd^2	Avg. Max	Specimen Max
over 10	4.5	10
over 8 less than 10	5.5	10
over 6 less than 8	6.5	10
over 4 less than 6	7.5	10
over 1.5 less than 4	8.5	10
Less than 1.5	9.0	10

Test 2: No specimen shall be damaged within 1.0 in. of the edge of the hole in the flattening frame.

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	38
2 CATEGORY	B
3 TEST METHOD OR SPECIFICATION DESIGNATION	X.2 NFPA 701
4 TITLE	Standard Methods of Fire Tests for Flame Resistant Textiles and Films (as Applied to Tents, Tarpaulin, and Other Protective Coverings)
5 SPONSORING ORGANIZATION	Industrial Fabrics Association International (IFAI)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory, some states
9 DATE OF LATEST APPROVAL	1977
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	tents, tarpaulins, and other protective coverings
12 SOURCE OF PUBLICATION	IFAI Fire Code Handbook, Vol. 1
13 PROPERTIES MEASURED	Small Scale Test: (CS-191-5905) Afterflame time, char length Large Scale Test: Flat: Afterflame time, char length, flaming of melt drip Large Scale Test: Folded: Afterflame time, char length, flaming of melt drip
14 SIZE OF TEST SPECIMEN	Small Scale Test: 2¾ by 10 in. Large Scale Test: Flat: 5 in. by 7 ft. Large Scale Test: Folded: 25 in. by 7 ft.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	Small Scale Test: 1½ in. flame Large Scale Test: Flat: 11 in. flame (natural gas) Large Scale Test: Folded: 11 in. flame (natural gas)
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA:	No specimen shall have an afterflame exceeding 2 s
MINIMUM CONDITIONS TO PASS	No specimen drip shall flame on tester floor *Small Scale*—Char Length: Fabric Wt. oz/yd^2 / Max Avg., in. / Max Indiv., in. over 10 / 3.5 / 4.5 over 6 to 10 or less / 4.5 / 5.5 6 or less / 5.5 / 6.5 *Large Scale*—Flat: 17 in. max char length *Large Scale*—Folded: 42 in. max char length

1 IDENTIFICATION NUMBER	39
2 CATEGORY	B
3 TEST METHOD OR SPECIFICATION DESIGNATION	X.2 NFPA 702
4 TITLE	Standard for Classification of the Flammability of Wearing Apparel (as Applied to Tents, Tarpaulins and Other Protective Coverings)
5 SPONSORING ORGANIZATION	Industrial Fabrics Association International (IFAI)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory in some states
9 DATE OF LATEST APPROVAL	1968
10 GOVERNMENT LEVEL MANDATING	state
11 DESCRIPTION OF TEXTILES COVERED	tents, tarpaulins, and other protective coverings
12 SOURCE OF PUBLICATION	IFAI Fire Code Handbook, Vol. 1
13 PROPERTIES MEASURED	flame spread
14 SIZE OF TENT SPECIMEN	2 by 6 in.
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	⅝-in. butane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA:	Class 1—20 s or more
MINIMUM CONDITIONS TO PASS	Class 2—8 to 19 s Class 3—3 to 7 s Class 4—Less than 3 s

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	**40**
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	UFAC 83 (Similar to NFPA-260A)
4 TITLE	UFAC Test Methods-83 Six individual tests: Fabric Classification Test Method; Interior Fabrics Test Method; Barrier Test Method; Filling/Padding Component Test Method; Welt Core Test Method; Decking Materials Test Method (UFAC)
5 SPONSORING ORGANIZATION	Upholstered Furniture Action Council (UFAC)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	Test 1: Fabric classification Test 2: Welt cord Test 3: Decking material Test 4: Filling/padding Test 5: Barriers Test 6: Interior fabric
12 SOURCE OF PUBLICATION	UFAC, Box 2436, High Point, NC 27261
13 PROPERTIES MEASURED	tease of ignition from smoldering cigarette
14 SIZE OF TEST SPECIMEN	varies
15 ANGLE OF TEST SPECIMEN	horizontal surface or parallel to crevice
16 IGNITION SOURCE	lighted cigarettes
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA:	The test criteria is specific for each test:
MINIMUM CONDITIONS TO PASS	*Fabric Classification Test:* Class I: Vertical Char length—max 1.75 in. Class II: Vertical Char length—greater than 1.75 in. *Interior Fabric Test*—vertical char of 1.5 in., no ignitions *Barrier Test*—vertical char of 2.0 in., no ignitions *Filling/Padding Test*—vertical char of 1.5 in., no ignitions *Welt Cord Test*—vertical char of 1.5 in., no ignitions *Decking Test*—char of 1.5 in. in any direction on the cover fabric

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	41
2 CATEGORY	B
3 TEST METHOD OR SPECIFICATION DESIGNATION	BIFMA F-1-78 (See also CS-191-53 and PFF-6-76)
4 TITLE	First Generation Voluntary Upholstery Furniture. Flammability Standard for Business and Institutional Markets A. Small flame ignition; B. Cigarette ignition
5 SPONSORING ORGANIZATION	The Business and Institutional Furniture Manufacturers Assoc. (BIFMA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	upholstered furniture
12 SOURCE OF PUBLICATION	The Business and Institutional Furniture Manufacturers Assoc., Grand Rapids, MI
13 PROPERTIES MEASURED	flame spread time, flaming combustion time, char length
14 SIZE OF TEST SPECIMEN	A: CS-191-53 modified; foam 3 by 6.5 in. ¾ in. max thickness B: PFF6-81; 22 by 27 in.
15 ANGLE OF TEST SPECIMEN	A: 45° B: horizontally on surface or parallel to crevice
16 IGNITION SOURCE	A: CS-191-53 modified − ⅝in. flame B: lighted cigarette
HEAT SOURCE	none
17 IGNITION TIME	A: CS-191-53 modified − 5 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	A: (1) Fabrics, coverings, ticking must meet normal flammability Class I requirements (2) Average time of the flame spread shall be ten seconds or more (10 s constitutes failure) (3) Time of flame spread for any single specimen shall be 7 s or more (7 s constitutes failure) B: (1) No obvious flaming ignition Fabric class A fiberglas board Char length B—char 1.5 in. Part II C—Use of Fiberglas board char length 1.5–3.0 in. D—Use fiberglas board—char length 3 in. (2) No char length: A—Cotton batt 1.5 in. B—Cotton batt 1.5 in.

1 IDENTIFICATION NUMBER	42
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	none
4 TITLE	Proposed Test Method for Heat Release Measurement by Oxygen Consumption
5 SPONSORING ORGANIZATION	National Bureau of Standards (NBS)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	n/a
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	upholstered furniture and mattresses, building materials, etc.
12 SOURCE OF PUBLICATION	NBSIR 82-2604, 82-2611, U.S. National Bureau of Standards, Washington, DC 20234
13 PROPERTIES MEASURED	Heat release rate, total heat released, weight loss
14 SIZE OF TEST SPECIMEN	100 by 100 mm
15 ANGLE OF TEST SPECIMEN	vertical or horizontal
16 IGNITION SOURCE	pilot in open radiation field 0–100 kW/m^2
HEAT SOURCE	none
17 IGNITION TIME	open
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	43
2 CATEGORY	C
3 TEST METHOD OR SPECIFICATION DESIGNATION	NBSIR 82-2532
4 TITLE	Test Method for the Assessment of the Acute Inhalation Toxicity of Combustion Products
5 SPONSORING ORGANIZATION	National Bureau of Standards (NBS)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	June 1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	various combustible products
12 SOURCE OF PUBLICATION	NBS Interim Report NBSIR 2532-82
13 PROPERTIES MEASURED	toxic effects, (inhalation), LC50 carboxyhemoglobin CO, CO_2, HCN
14 SIZE OF TEST SPECIMEN	n/a
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	specimen heated in furnace
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	n/a

1 IDENTIFICATION NUMBER	44
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA 253 (Similar to ASTM E648)
4 TITLE	Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using Radiant Heat Energy Source
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	May 17, 1978
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	floor coverings
12 SOURCE OF PUBLICATION	National Fire Codes
13 PROPERTIES MEASURED	critical radiant heat-flux at flame-out
14 SIZE OF TEST SPECIMEN	10 by 42 in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	radiant panel, the lower edge set 14 in. above the specimen and at a 30° angle from the horizontal specimen plane.
HEAT SOURCE	½ in. blue inner cone, propane flame, in direct vertical contact with the specimen edge.
17 IGNITION TIME	10 min.
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	no pass/fail criteria

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	45
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA-260A (Similar to UFAC-83)
4 TITLE	Standard Method of Test and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	Test 1—fabric classification Natl. Fire Codes, Vol. 10 Code & Standards Natl. Fire Protection Assoc. Test 2—Welt cord Test 3—Decking material Test 4—Filling/padding Test 5—Barriers Test 6—Interior fabric
12 SOURCE OF PUBLICATION	National Fire Codes, Volume 10, Codes& Standards, NFPA
13 PROPERTIES MEASURED	ease of ignition from smoldering cigarette
14 SIZE OF TEST SPECIMEN	8 by 8 in., 12 by 12 in.
15 ANGLE OF TEST SPECIMEN	horizontal surface or parallel to crevice
16 IGNITION SOURCE	lighted cigarette
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	The test criteria is specific for each test: *Fabric Classification Test:* *Class I*—Vertical Char length—max 1.75 in. *Class II*—Vertical Char length—greater than 1.75 in. *Interior Fabric Test*—vertical char of 1.5 in., no ignitions *Barrier Test*—vertical char of 2.0 in., no ignitions *Filling/Padding Test*—vertical char of 1.5 in., no ignitions *Welt Cord Test*—vertical char of 1.5 in., no ignitions *Decking Test*—char of 1.5 in. in any direction on the cover fabric

1 IDENTIFICATION NUMBER	46
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA-260B (see also Draft 16 CFR 1633; also BIFMA)
4 TITLE	Standard Test Method for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	upholstery in hospitals, nursing homes, public places, (educational assembly)
12 SOURCE OF PUBLICATION	Codes and Standards, National Fire Protection Assoc. Vol. 10 National Fire Codes
13 PROPERTIES MEASURED	ease of ignition from smoldering cigarette
14 SIZE OF TEST SPECIMEN	PFF6-81 8 by 8 in., 8 by 12 in. (small scale test) Fabric Classification 22 by 27 in. (large scale test) mock up
15 ANGLE OF TEST SPECIMEN	horizontal on surface or parallel to crevice
16 IGNITION SOURCE	lighted cigarette
HEAT SOURCE	none
17 IGNITION TIME	n/a
18 tPERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS TO PASS	*Mock up Test:* (1) No obvious flaming ignition (2) No char length more than 3 in. *Fabric Classification Test:* Fabric Class A–B Fiberglas Char length—1.5 in. or less retest Class A—Cotton char length—1.5 in. or less Class B—Cotton Char length—1.5 in. or greater Class C—Fiberglas char length—1.5 to 3.0 in. Class D—Fiberglas char length—3.0 in. or greater

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	47
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA-701
4 TITLE	Standard Methods of Fire Tests for Flame-Resistant Textiles and Films
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory in some cities
9 DATE OF LATEST APPROVAL	1996
10 GOVERNMENT LEVEL MANDATING	state and municipal
11 DESCRIPTION OF TEXTILES COVERED	curtain and drapes, films, or other textiles
12 SOURCE OF PUBLICATION	National Fire Protection Association Codes and Standards; National Fire Codes, Volume 2
13 PROPERTIES MEASURED	*Small Scale Test*—weight loss, flaming melt drip observation *Large Scale Test—Flat*— char length, flaming melt drip observation *Large Scale Test—Folded*— char length; flaming melt drip observation
14 SIZE OF TEST SPECIMEN	Small Scale Test: 6 by 15.75 in. Large Scale Test—Flat: 5 in. by 48 in. Large Scale Test—Folded: 25 in. by 48 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	Small Scale Test: 4-in. flame Large Scale Test-Flat: 11-in. flame Large Scale Test-Folded: 11-in. flame
HEAT SOURCE	None
17 IGNITION TIME	Small Scale Test 45 s; Large Scale Test — Flat and Folded — 2 min
18 PERFORMANCE SPECIFICATION CRITERIA:	Small Scale Test- Failure when average weight loss of the 10 specimens is greater than 40% Small scale test flaming fragments that fall to the floor shall not continue to burn for more than an average 2 s per sample of 10 specimens Large Scale Test — Flat and Folded — Failure if 41 in. char length is obtained No specimen shall continue flaming for more than 2 s after flame is removed. No flaming fragments that fall to the floor shall burn for more than 2 s.

1 IDENTIFICATION NUMBER	48
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA 702 (see also section 16 CFR 1610)
4 TITLE	Flammability of Wearing Apparel
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	November 18, 1980
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	clothing except hats, gloves, footwear, and interlinings
12 SOURCE OF PUBLICATION	National Fire Codes
13 PROPERTIES MEASURED	flame-spread time; ease of ignition
14 SIZE OF TEST SPECIMEN	2 by 6 in.
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	5/8-in. flame
HEAT SOURCE	none
17 IGNITION TIME	1 s or until ignition for flat fabrics
18 PERFORMANCE SPECIFICATION CRITERIA:	Class 1—20 s or more
MINIMUM CONDITIONS TO PASS	Class 2—8 to 19 s Class 3—3 to 7 s Class 4—less than 3 s

TABLE 1 *Continued*

1 IDENTIFICATION NUMBER	49
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	NFPA 1971 (Uses FTMS 191 Method 5903)
4 TITLE	Protective Clothing for Structural Fire Fighting
5 SPONSORING ORGANIZATION	National Fire Protection Association (NFPA)
6 TEST METHOD	no
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	1985 (Revised 1986)
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	all fabrics used in protective clothing for fire fighters
12 SOURCE OF PUBLICATION	National Fire Protection Association
13 PROPERTIES MEASURED	char length and afterflame time
14 SIZE OF TEST SPECIMEN	2¾ by 12 in.
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	Bunsen burner, 1½ in. producer gas flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA:	Char length 4.0 in. max
MINIMUM CONDITIONS TO PASS	afterflame time 2.0 s max

1 IDENTIFICATION NUMBER	50
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	UL 964 Similar to ASTM Test Method D 4151
4 TITLE	Safety Standard for Electrically Heated Bedding
5 SPONSORING ORGANIZATION	Underwriters' Laboratories (UL)
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	mandatory for UL Listing
9 DATE OF LATEST APPROVAL	1981
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	electrically heated bedding
12 SOURCE OF PUBLICATION	American National Standards Institute, 1430 Broadway, New York, NY 10018
13 PROPERTIES MEASURED	ignition or char of paper monitor
14 SIZE OF TEST SPECIMEN	2¾ by 2¾ in.
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	⅝-in. methane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA:	*Pass*—No paper monitor may burn or char in testing ten specimens.
MINIMUM CONDITIONS TO PASS	*Pass*—One paper monitor may burn or char in testing fifteen specimens.
	Fail—Two paper monitors burn or char in testing ten or fifteen specimens.

1 IDENTIFICATION NUMBER	51
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	UL 214
4 TITLE	Standard for Tests for Flame Propagation of Fabrics and Films, UL 214
5 SPONSORING ORGANIZATION	Underwriters Laboratories, Inc.
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATION	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	October 22, 1997
10 GOVERNMENT LEVEL MANDATING	Department of Defense (DOD)
11 DESCRIPTION OF TEXTILES COVERED	Fabrics or films intended for such use as tents, awnings, draperies, or decorations
12 SOURCE OF PUBLICATION	Underwriters Laboratories - Standard for Safety UL 214
13 PROPERTIES MEASURED	Small-scale test—Weight loss, char length, after flame, flaming melt drip observation Large-scale test—Flat—Char length, after flame, flaming melt drip observation Large-scale test—Folded—Char length, flaming melt drip observation, after flame
14 SIZE OF TEST SPECIMEN	Small-scale test—2¾ by 10 in. Large-scale test—Flat, 5 by 30-84 in. Large-scale test—Folded 25 by 30-84 in.
15 ANGLE OF TEST SPECIMEN	Vertical
16 IGNITION SOURCE	Small-scale test—1½-in. flame Large-scale test—Flat 11-in. flame Large-scale test—Folded 11 in.
HEAT SOURCE	none
17 IGNITION TIME	Small-scale test—12 s. Large-scale test both flat and folded—2 min
18 PERFORMANCE SPECIFICATION CRITERIA	Small-scale test—Failure if flaming fragments that fall to the floor continue to burn; failure if sample continues to flame more than 2 s after flame withdrawal; failure if maximum average length of char of 10 specimens exceed specified char length and fabric weight criteria; failure of thermoplastic fabrics if average of 10 specimens exceed 5 % weight loss Large-scale test—Failure specimen shall not continue to flame 2 s after flame withdrawal; failure if portions or residues which fall to the floor continue to burn Large-scale—Flat sheet char length shall not exceed 10 in. above the tip of the flame (17 in.) Large-scale folded—Char length of folded specimen shall not exceed 35 in. above the tip of the flame (42 in.)

TABLE 2 Canadian Textile Flammability Test Methods and Performance Specifications

1 IDENTIFICATION NUMBER	1C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27—M
4 TITLE	Textile Test Methods, Flame Resistance—Selection of Methods
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	No
7 PERFORMANCE SPECIFICATIONS	n/a
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	April 1982
10 GOVERNMENT LEVEL MANDATING	None
11 DESCRIPTION OF TEXTILES COVERED	all
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	n/a
14 SIZE OF TEST SPECIMEN	n/a
15 ANGLE OF TEST SPECIMEN	n/a
16 IGNITION SOURCE	n/a
HEAT SOURCE	n/a
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	Guide to the Selection of Methods

1 IDENTIFICATION NUMBER	2C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27.1—M 87
4 TITLE	Textile Test Methods for Flame Resistance—Vertical Burning Test
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	September 1987
10 GOVERNMENT LEVEL MANDATING	Federal—National Building Code
11 DESCRIPTION OF TEXTILES COVERED	fabrics
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	surface flash, afterglow time and afterflame time, length of any damaged area and any abnormal behaviour
14 SIZE OF TEST SPECIMEN	75 by 315 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	40 mm gas flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	3C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No 27.2—M 87
4 TITLE	Textile Test Methods Flame Resistance—Surface Burning Test
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	August 1987
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	non-thermoplastic fabrics
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	duration of afterflame, and afterglow(s) and width of char and any abnormal behaviour
14 SIZE OF TEST SPECIMEN	150 by 180 mm
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	0.3 mL of absolute ethanol in cup 25 mm below specimen
HEAT SOURCE	none
17 IGNITION TIME	about 50 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

1 IDENTIFICATION NUMBER	4C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27.3—M 86/ISO 6941—1984
4 TITLE	Textile Test Methods, Textile Fabrics—Burning Behaviour—Measurement of Flame Spread Properties of Vertically Oriented Specimens
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	December 1986
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics for apparel, curtains and draperies
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	time of flame spread to 220, 370 and 520 mm, after flame and glow time, maximum damaged width or length, and if fabric produces flaming debris
14 SIZE OF TEST SPECIMEN	560 by 170 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	40 mm propane or butane flame
HEAT SOURCE	none
17 IGNITION TIME	5 and 15 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	5C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27.4—M 86 ISO 6940—1984
4 TITLE	Textile Test Methods, Textile Fabrics—Burning Behaviour—Determination of Ease of Ignition of Vertically Oriented Specimens.
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	December 1986
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics for apparel, curtains and draperies
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	mean ignition and non-ignition times
14 SIZE OF TEST SPECIMEN	80 by 80 mm or 200 by 80 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	40 mm propane or butane flame
HEAT SOURCE	none
17 IGNITION TIME	Increased in 1.05 increments to a maximum of 20 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

1 IDENTIFICATION NUMBER	6C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27.5—M 87
4 TITLE	Textile Test Methods Flame Resistance—45° Angle Test—One Second Flame Impingement
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	September 1987
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics compressible to 6 mm or less
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	flame spread time and surface burn characteristics of fabrics with a raised surface or without
14 SIZE OF TEST SPECIMEN	50 by 165 mm
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	16 mm butane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	7C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No. 27.6—M 84
4 TITLE	Textile Test Methods Flame Resistance—Methenamine Tablet Test for Textile Floor Coverings
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	See item 18 below
8 CONFORMANCE TO SPECIFICATIONS	See item 18 below
9 DATE OF LATEST APPROVAL	December 1984
10 GOVERNMENT LEVEL MANDATING	Federal—Hazardous Products Act
11 DESCRIPTION OF TEXTILES COVERED	textile floor coverings
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	extent of burning as measured by the shortest distance between damaged area and frame
14 SIZE OF TEST SPECIMEN	230 by 230 mm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	methenamine timed–burning tablet
HEAT SOURCE	none
17 IGNITION TIME	approximately 50 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a. Published separately in Canadian General Standards Board 4—GP—155M: Reject if 16 of 48 specimens burn to restraining ring; with table for normal sequential sampling.

1 IDENTIFICATION NUMBER	8C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.2 No 27.7—M
4 TITLE	Textile Test Methods—Combustion Resistance of Mattresses—Cigarette Test
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	July 1982
10 GOVERNMENT LEVEL MANDATING	Federal—Hazardous Products Act
11 DESCRIPTION OF TEXTILES COVERED	mattresses
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	extent of combustion as indicated by: 1) a damaged area greater than 50 mm and 2) combustion occurring 10 min after the cigarette has extinguished
14 SIZE OF TEST SPECIMEN	300 by 300 mm ±5 mm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	smoldering cigarette
HEAT SOURCE	none
17 IGNITION TIME	burn entire cigarette (1500 ± 100 s)
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	9C	
2 CATEGORY	A	
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB 4.162—M 80 (carpets)	
4 TITLE	Hospital Textiles—Flammability Performance Requirements	
5 SPONSORING ORGANIZATION	Canadian General Standards Board	
6 TEST METHOD	yes	
7 PERFORMANCE SPECIFICATIONS	yes	
8 CONFORMANCE TO SPECIFICATIONS	yes	
9 DATE OF LATEST APPROVAL	June 1980	
10 GOVERNMENT LEVEL MANDATING		
11 DESCRIPTION OF TEXTILES COVERED	carpets intended for hospital use	
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6	
13 PROPERTIES MEASURED	burning characteristics/flame spread rate/ fuel contribution smoke density	extent of burning as measured by the shortest distance between damaged area and frame
14 SIZE OF TEST SPECIMEN	440 by 65 by 7315 mm	230 by 230 mm
15 ANGLE OF TEST SPECIMEN	horizontal	horizontal
16 IGNITION SOURCE	45° natural gas or methane flame	timed methenamine tablet
HEAT SOURCE	none	none
17 IGNITION TIME	10 min	50 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	ULC S102.2	CAN/CGSB—4.2—M No. 27.6—M

Carpet Type	Maximum Flame-Spread Rating	Maximum Smoke Developed Classification
Wool carpet (woven), mass of pile per unit area not less than 1120 g/m^2, applied with felt underlay	300	300
Nylon carpet, mass of pile per unit area not less than 610 g/m^2, and not more than 880 g/m^2, applied with felt underlay	300	500
Nylon carpet, mass of pile per unit area not less than 610 g/m^2, and not more than 1355 g/m^2, glued down to concrete	300	500

CAN/S102.2—M 83, ULC (Refer ID No. 16C) Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials

Location	Maximum Flame-Spread Rating	Maximum Smoke Developed Classification
Exit stairways, vestibules to exit stairs and exit lobbies	25	50
Corridors, providing access to exit, except within suites	300	500
Elevator cars and vestibules	300	300
Service spaces and service rooms	25	50

CAN/CGS—No. 27.6—M (Refer ID No. 7C) Flame Resistance—Methenamine Tablet Test for Textile Floor Coverings

Rooms or spaces other than the above, such as wards, suites, offices, etc.		

1 IDENTIFICATION NUMBER	10C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.162—M 80 (Apparel)
4 TITLE	Hospital Textiles—Flammability Performance Requirements
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	yes
9 DATE OF LATEST APPROVAL	June 1980
10 GOVERNMENT LEVEL MANDATING	Federal and Provincial
11 DESCRIPTION OF TEXTILES COVERED	patient apparel intended for hospital use
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	flame spread time and surface burn characteristics of fabrics with or without a raised surface, each on laundered specimen
14 SIZE OF TEST SPECIMEN	50 by 165 mm
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	16 mm butane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA:	**Must** a) not ignite
MINIMUM CONDITIONS	b) ignite but have a flame spread time of more than 7 s

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	11C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.162—M 80 (Bed Linen)
4 TITLE	Hospital Textiles—Flammability Performance Requirements
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	yes
9 DATE OF LATEST APPROVAL	June 1980
10 GOVERNMENT LEVEL MANDATING	Federal and Provincial
11 DESCRIPTION OF TEXTILES COVERED	bed linen intended for hospital use
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	time for ignition and for flame spread of 127 mm of fabrics with or without a raised surface
14 SIZE OF TEST SPECIMEN	50 by 165 mm
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	16 mm butane flame
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA:	a) not ignite
MINIMUM CONDITIONS	b) ignite but not burn stop cord

1 IDENTIFICATION NUMBER	12C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.162—M 80 (Drapes and Curtains)
4 TITLE	Hospital Textiles—Flammability Performance Requirements
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	yes
9 DATE OF LATEST APPROVAL	June 1980
10 GOVERNMENT LEVEL MANDATING	
11 DESCRIPTION OF TEXTILES COVERED	window drapes and cubicle curtains intended for hospital use
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	surface flash, afterglow time and afterflame time, length of damaged area and any abnormal behaviour
14 SIZE OF TEST SPECIMEN	75 by 315 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	40 mm gas flame
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA:	[A]
MINIMUM CONDITIONS	c) Have a flame spread time of more than 7 s. Where the products do not have a raised-fibre surface, or d) Have a flame spread time of more than 7 s. Where the products have a raised-fibre surface and exhibit ignition or fusion of their base fibres Acceptable if: (a) No flashing occurs at any time over the length of the test specimen (b) The average duration of afterflame does not exceed 2 s (c) Afterglow does not extend beyond the area originally charred by the flame, and (d) In general, the length of char of melt does not exceed the values listed in this table

Mass per Unit Area of Fabric[A] (g/m^2)	Maximum Average Length of Char or Melt (mm)	Maximum Single Length of Char or Melt (mm)
over 350	90	115
200 to 350	115	140
up to 200	140	165

[A] Specimens are laundered according to CAN/CGSB 4.2—M No. 34–MB-4 or dry-cleaned five times according to CAN/CGSB 4.2-M No. 30.1-M (using perchloroethylene)

TABLE 2 *Continued*

1 IDENTIFICATION NUMBER	13C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.162—M 80 (mattresses)
4 TITLE	Hospital Textiles—Flammability Performance Requirements
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	yes
9 DATE OF LATEST APPROVAL	June 1980
10 GOVERNMENT LEVEL MANDATING	Federal and Provincial
11 DESCRIPTION OF TEXTILES COVERED	mattresses intended for hospital use
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	extent of combustion as indicated by: 1) a damaged area greater than 50 mm in any direction 2) combustion occurring 10 min after cigarette has extinguished
14 SIZE OF TEST SPECIMEN	300 by 300 mm (±5 mm)
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	smouldering cigarette
HEAT SOURCE	none
17 IGNITION TIME	burn entire cigarette (500 + 100 s)
18 PERFORMANCE SPECIFICATION CRITERIA:	1) must not sustain damage outside of 50 mm perimeter
MINIMUM CONDITIONS	2) must not continue combustion 10 min after cigarette has extinguished

1 IDENTIFICATION NUMBER	14C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN/CGSB—4.175—M 87/ISO 4880—1984
4 TITLE	Burning Behaviour of Textiles and Textile Products—Vocabulary
5 SPONSORING ORGANIZATION	Canadian General Standards Board
6 TEST METHOD	no
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	May 1987
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	all textiles
12 SOURCE OF PUBLICATION	Canadian General Standards Board, Ottawa, Canada K1A 1G6
13 PROPERTIES MEASURED	n/a
14 SIZE OF TEST SPECIMEN	n/a
15 ANGLE OF TEST SPECIMEN	n/a
16 IGNITION SOURCE	n/a
HEAT SOURCE	n/a
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	15C
2 CATEGORY	B
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN—S102—M 83
4 TITLE	Test Method For Surface Burning Characteristics of Building Materials and Assemblies
5 SPONSORING ORGANIZATION	Underwriter's Laboratories of Canada
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	February 1983
10 GOVERNMENT LEVEL MANDATING	Federal—National Building Code
11 DESCRIPTION OF TEXTILES COVERED	wall coverings
12 SOURCE OF PUBLICATION	Underwriter's Laboratories of Canada, 7 Course Road, Scarborough, Canada M1R 3A9
13 PROPERTIES MEASURED	burning characteristics—flame spread rate/fuel contribution/smoke density
14 SIZE OF TEST SPECIMEN	minimum 500 ± 20 mm by 7315 ± 15 mm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	natural (city) or bottle methane flame
HEAT SOURCE	none
17 IGNITION TIME	10 min
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

1 IDENTIFICATION NUMBER	16C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN 4—S102.2—M 83
4 TITLE	Test Method For Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies
5 SPONSORING ORGANIZATION	Underwriter's Laboratories of Canada
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	February 1983
10 GOVERNMENT LEVEL MANDATING	Federal—National Building Code
11 DESCRIPTION OF TEXTILES COVERED	floor coverings
12 SOURCE OF PUBLICATION	Underwriter's Laboratories of Canada, 7 Course Road, Scarborough, Ontario, Canada M1R 3A9
13 PROPERTIES MEASURED	burning characteristics/flame spread rate/fuel contribution/smoke density
14 SIZE OF TEST SPECIMEN	440 by 65 by 7315 mm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	two gas burners of approximately 90 kw which causes a flame to extend a distance of 1370 mm
HEAT SOURCE	none
17 IGNITION TIME	full duration of tests
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a (Refer ID No. 9C)

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	17C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN 4 S109—M 80 (See also UL 214)
4 TITLE	Standard for Flame Tests of Flame-Resistant Fabrics and Films
5 SPONSORING ORGANIZATION	Underwriter's Laboratories of Canada
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	yes
8 CONFORMANCE TO SPECIFICATIONS	voluntary
9 DATE OF LATEST APPROVAL	December 1980
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics
12 SOURCE OF PUBLICATION	Underwriter's Laboratories of Canada, 7 Crouse Rd., Scarborough, Canada, M1R 3A9
13 PROPERTIES MEASURED	afterflame time, char length, flaming propensity
14 SIZE OF TEST SPECIMEN	a) Small scale 70 by 250 mm; b) large scale i) single sheet, 125 by 750 to 2100 mm, ii) folded 625 by 750 to 2100 mm folded in 4
15 ANGLE OF TEST SPECIMEN	a) vertical, b) vertical
16 IGNITION SOURCE	a) 40 mm luminous gas flame, b) 280 mm oxidizing flame
HEAT SOURCE	none
17 IGNITION TIME	a) 12 s; b) 120 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	To pass the test the materials must meet the following requirements: a) i) maximum after-flame time less than 2 s ii) No flaming drops iii) Max char length shall not exceed 115 for fabrics of 340 g/m^2, 140 mm for fabrics of 200 to 340 g/m^2, 165 mm for fabrics of 200 g/m^2 b) the same as (i) and (ii) above plus (iii). Maximum char length of 250 mm for single sheet and 890 mm for folded sheets.

1 IDENTIFICATION NUMBER	18C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	CAN 4—S117.1—M 80
4 TITLE	Test Method For Flame Resistance—Methanamine Tablet Test for Textile Floor Coverings
5 SPONSORING ORGANIZATION	Underwriter's Laboratories of Canada
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	December 1980
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	floor coverings
12 SOURCE OF PUBLICATION	Underwriter's Laboratories of Canada, 7 Crouse Rd., Scarborough, Canada M1R 3A9
13 PROPERTIES MEASURED	Extent of burning as measured by the shortest distance between damaged area and frame
14 SIZE OF TEST SPECIMEN	230 by 230 mm
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	timed methenamine tablet
HEAT SOURCE	none
17 IGNITION TIME	until flame and glow cease (approx. 50 s)
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	19C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–500 1982–05–31
4 TITLE	Textiles—Résistance à l'inflammabilité—Essai de brûlage vertical (Textiles—Flame Resistance—Vertical Burning Test)
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	May 1982
10 GOVERNMENT LEVEL MANDATING	
11 DESCRIPTION OF TEXTILES COVERED	flame-resistant textiles
12 SOURCE OF PUBLICATION	Bureau de normalisation du Quebéc, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	afterflame, afterglow and length of damaged surface (on specimen)
14 SIZE OF TEST SPECIMEN	50 by 315 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	40-mm gas flame (bunsen or tyrill type)
HEAT SOURCE	none
17 IGNITION TIME	12 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a

1 IDENTIFICATION NUMBER	20C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–510 1982–04–21
4 TITLE	Textiles—Comportement au feu, Méthode de brûlage sous un angle de 45° (Flame Resistance—45° Angle Test)
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	April 1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	raised fibre and non-raised fibre
12 SOURCE OF PUBLICATION	Bureau de normalisation du Québec, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	time to ignite and for flame to travel 125 mm, and burning characteristics
14 SIZE OF TEST SPECIMEN	50 by 165 mm
15 ANGLE OF TEST SPECIMEN	45°
16 IGNITION SOURCE	15
HEAT SOURCE	none
17 IGNITION TIME	1 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	—

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	21C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–520 1982–09–17
4 TITLE	Textiles—Comportement au feu, taux de brûlage Textiles—Flame Resistance—Rate of Burning
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	September 1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	flame-resistant fabrics
12 SOURCE OF PUBLICATION	Bureau de normalisation du Québec, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	time for top of flame to travel a given distance (rate of flame propagation)
14 SIZE OF TEST SPECIMEN	50 by 760 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	15 mm gas flame from bunsen or tyrill gas burner
HEAT SOURCE	none
17 IGNITION TIME	time to ignite specimen
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	—

1 IDENTIFICATION NUMBER	22C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–530 1982–09–16
4 TITLE	Textiles—Comportement au feu, facilité d'inflammation Textiles—Flame Resistance—Ease of Ignition
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	September 1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics
12 SOURCE OF PUBLICATION	Bureau de normalisation du Québec, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	time for ignition of fabric
14 SIZE OF TEST SPECIMEN	180 by 180 mm (25 mm larger than frame)
15 ANGLE OF TEST SPECIMEN	horizontal
16 IGNITION SOURCE	30 mm
HEAT SOURCE	none
17 IGNITION TIME	increments of 0.5 s
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	23C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–580 1982–03–16
4 TITLE	Textiles—Choix et domaine d'application des méthods de comportement des textiles au feu Textiles—Flame Resistance—Selection of Methods
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	no
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	March 1982
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	all textiles
12 SOURCE OF PUBLICATION	Bureau de normalisation du Quebéc, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	n/a
14 SIZE OF TEST SPECIMEN	n/a
15 ANGLE OF TEST SPECIMEN	n/a
16 IGNITION SOURCE	n/a
17 IGNITION TIME	n/a
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	guide to selection of methods

1 IDENTIFICATION NUMBER	24C	
2 CATEGORY	A	
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–590 1982–09–16	
4 TITLE	Textiles—Comportement au feu—classification des textiles en fonction de leur résistance au feu Textile Burning Behaviour—Flame Resistance Classification	
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec	
6 TEST METHOD	yes	
7 PERFORMANCE SPECIFICATIONS	yes	
8 CONFORMANCE TO SPECIFICATIONS	no	
9 DATE OF LATEST APPROVAL	September 1982	
10 GOVERNMENT LEVEL MANDATING	none	
11 DESCRIPTION OF TEXTILES COVERED	all non-fusible textiles	
12 SOURCE OF PUBLICATION	Bureau de normalisation du Québc, Ministére de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5	
13 PROPERTIES MEASURED	time of afterflame/afterglow and damaged area after ethanol flame has extinguished	
14 SIZE OF TEST SPECIMEN	150 by 180 mm	
15 ANGLE OF TEST SPECIMEN	45°	
16 IGNITION SOURCE	ethanol	
HEAT SOURCE	none	
17 IGNITION TIME	50 s	
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	Rating	
Resistant to Burning	R	If specimen doesn't show any sign of afterglow or afterflame, and if the damaged area does not extend the length of the specimen (nor the width)
Moderately Resistant to Burning	M	If afterglow/afterflame extinguishes within 15 s of the ethanol flame and if the damaged area does not extend beyond a 50 mm width limit centered about the flame
No Resistance to Burning	N	If any of the criterion for an 'M' rating are not met

TABLE 2 *continued*

1 IDENTIFICATION NUMBER	24C
2 CATEGORY	A
3 TEST METHOD OR SPECIFICATION DESIGNATION	BNQ 7002–595 83–04–19
4 TITLE	Textiles—Comportement au feu, détermination de l'indice d'oxygène Textiles—Burning Behaviour, Determination of Oxygen Index
5 SPONSORING ORGANIZATION	Bureau de normalisation du Québec
6 TEST METHOD	yes
7 PERFORMANCE SPECIFICATIONS	no
8 CONFORMANCE TO SPECIFICATIONS	n/a
9 DATE OF LATEST APPROVAL	April 1983
10 GOVERNMENT LEVEL MANDATING	none
11 DESCRIPTION OF TEXTILES COVERED	fabrics
12 SOURCE OF PUBLICATION	Bureau de normalisation du Québec, Ministère de l'industrie, du commerce et du tourisme, 50 rue Saint-Joseph est, Québec, Canada, G1K 3A5
13 PROPERTIES MEASURED	Amount of oxygen required for 3 min ± 10 s of flaming or 10 mm ± 5 mm of burning without extinction
14 SIZE OF TEST SPECIMEN	150 mm by 70 mm
15 ANGLE OF TEST SPECIMEN	vertical
16 IGNITION SOURCE	any
HEAT SOURCE	none
17 IGNITION TIME	until specimen ignites
18 PERFORMANCE SPECIFICATION CRITERIA: MINIMUM CONDITIONS	n/a