 Health Santé Canada Canada	Title of publication-Titre de la publication	Page	Effective En vigueur
	Product Safety Reference Manual		
Book 5 - Laboratory Policies and Procedures		F04-1	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre			Amendment number- Numéro de la modification
Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			33

## 1 SCOPE


- 1.1 This method describes procedures for evaluating the flammability of textile floor coverings. It is applicable to items 29 and 30 of Part II of Schedule I of the Hazardous Products Act (HPA).
- 1.2 This method is provided to facilitate laboratory procedures only. It is the trader's responsibility to ensure that the product is tested according to, and meets the requirements of, the HPA and its Regulations.

## 2 APPLICABLE DOCUMENTS

- 2.1 Hazardous Products (Carpets) Regulations SOR 91-264 ([Appendix I](#))
- 2.2 Method 27.6, of CGSB Standard 4-GP-2, *Flame Resistance - Methenamine Tablet Test*, published in February, 1973 (*Note 1*) ([Appendix II](#))
- 2.3 The Normal Sequential Sampling Plan of Canadian General Specifications Board (CGSB) Standard 4-GP-155: *Standard for Flammability of Soft Floor Coverings - Sampling Plans*, published in January, 1974 ([Appendix III](#) - referenced section only)
- 2.4 Method 2, of CGSB Standard 4-GP-2, *Conditioning Textile Materials for Testing*, published in July, 1977 ([Appendix IV](#))
- 2.5 Method 30.2, of CGSB Standard 4-GP-2, *Procedure for the Removal of Flame-retardant Treatments on Textile Floor Coverings*, published in July, 1974 (*Note 1*) ([Appendix V](#))
- 2.6 Method F-22 of this manual: *Test Methods for Detection of Flame Retardants in textile Products and Fibres*
- 2.7 Product Safety Reference Manual: *Book 4 - Flammable Products*
- 2.8 Product Safety Laboratory Project #2000-0601- Carpet Test Method Review

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*Note 1:* The standards from 1971, referenced by the regulation, were provisional. Method 27.6-1973 and Method 30.2-1974 are the standards that replaced the provisional ones. Method 27.6P is available upon request. In fact, there was no 1971 version of Method 30.2 - the washing instructions are contained within 27.6P-1971

 Health Santé Canada Canada	Title of publication-Titre de la publication	Page	Effective En vigueur
	Product Safety Reference Manual		
Book 5 - Laboratory Policies and Procedures		F04-2	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre			Amendment number- Numéro de la modification
Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			33

### 3 DEFINITIONS


- 3.1 Specimen Failure - The performance of any specimen in which the charred area reaches a distance of 25.4 mm or less, measured radially from the inside edge of the prescribed frame when the specimen is tested according to this method.
- 3.2 Normal Sequential Sampling Plan - the plan for testing the 48 specimens taken from a sample as described in 4-GP-155 ([Appendix III](#))
- 3.3 See section 2 of the Hazardous Products (Carpets) Regulations ([Appendix I](#))

### 4 APPARATUS

- 4.1 See section 3 of Method 27.6 ([Appendix II](#)).
- 4.2 Conditioning facility capable of conditioning and, when applicable, pre-conditioning, the specimens according to Method 2 ([Appendix IV](#)).

### 5 PROCEDURE

- 5.1 Remove, copy and/or take notes from any labels or from any other information that accompanies the sample.
- 5.2 Test the sample for flame retardants as per Method F-22 (Arc Spectrography and Beilstein) unless another source (label, inspector) has indicated that the sample is treated.
- 5.2.1 If it is determined that the sample contains flame retardants or another source has indicated that it is treated, then subject the sample to Method 30.2 of CGSB Standard 4-GP-2 ([Appendix V](#)). **Note:** Specimens are cut larger to allow for shrinkage.
- 5.2.2 If it is determined that the samples do not contain flame retardants, then cut the sample as per Method 27.6 of CGSB Standard 4-GP-2 ([Appendix II](#)).
- 5.5 Notes on cutting:
- 5.5.1 Mark, number and cut the specimens from the wrong side of the sample.
- 5.5.2 When cutting a rag rug or other loosely woven carpet it will be necessary to masking tape the corners of each specimen immediately after cutting to keep it from falling apart.
- 5.6 Condition the specimens as per Method 2 of CGSB Standard 4-GP-2 ([Appendix IV](#)).
- 5.7 Test the specimens as per Method 27.6 of CGSB Standard 4-GP-2 ([Appendix II](#)) using the Normal Sequential Sampling Plan of 4-GP-155 ([Appendix III](#)).

 Health Canada / Santé Canada	Title of publication-Titre de la publication Product Safety Reference Manual	Page	Effective En vigueur
	Book 5 - Laboratory Policies and Procedures	F04-3	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

5.7.1 Use the table of random numbers in Appendix VI to determine the specimen test sequence or use any other random number generator.

5.8 Do the test in a walk-in fume hood using 5 test boxes for the first test set and 3 test boxes for each of the subsequent test sets.

5.9 In the event that there is not enough sample to produce the 48 specimens required by the method, cut as many as possible and then generate a list of random numbers using this total. If the sample consists of more than one sample element, number the specimens sequentially across the sample elements. e.g. 6 mats from which can be cut 6 specimens each - mat A has specimens 1 to 6 , mat B has specimens 7 to 12 etc. The website [www.random.org](http://www.random.org) (randomized sequences) may be used to generate the random numbers.

## 6 HEALTH AND SAFETY

6.1 The fumehood should be set to low during the test ( $\leq 0.3$  m/s).

## 7 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

7.1 Ensure that the methenamine tablets have been properly conditioned to avoid shattering.

7.2 Precondition the samples/specimens if they have recently been exposed to an atmosphere greater than 50% R.H. (Appendix IV, para. 5.1).

7.3 The scale or ruler must be graduated in millimetres.

7.4 The desiccant used must be anhydrous. This can be ensured by using a desiccant with a colour indicator.

7.5 Ensure that the specimens have been conditioned to moisture equilibrium in the standard atmosphere of  $20 \pm 2^\circ\text{C}$  and  $65 \pm 2\%$  R.H. Moisture equilibrium is defined in Appendix IV paragraph 5.2 (*Note 2*).

7.6 There are no Quality Control procedures for this method at this time.


## 8 TEST REPORT

8.1 The test report should contain the following information:


8.1.1 The fibre content, if given (analysis not required).

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*Note 2:* It may be sufficient in routine testing to expose the material to the standard atmosphere for at least 12 hours prior to testing. For official samples or in cases of dispute, moisture equilibrium shall be obtained using the prescribed methods.

 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-4	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

- 8.1.2 The results of the testing for fire retardants.
  - 8.1.3 Whether or not the sample was washed
  - 8.1.4 The number of specimens cut if not 48.
  - 8.1.5 The closest distance of the char from the inside edge of the ring for each specimen tested, in millimetres.
  - 8.1.6 Scanned copy of all labels, where possible.
- 8.2 The report may be prepared in the format illustrated on the following page:

 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>		Page	Effective En vigueur
	Book 5 - Laboratory Policies and Procedures		F04-5	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre <b>Part B: Test Methods Section, Method F-04</b> <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>				Amendment number- Numéro de la modification  33

Measured dimensions (average): 68.75 cm X 105.25 cm

[OR]

Dimensions (from SR/label):

Longest dimension: 1.10 m

Area: 1.74 m<sup>2</sup>

Arc emission spectrography and the Beilstein test did not reveal the presence of flame retardant chemicals containing phosphorus, aluminium, boron, antimony or halogens.


[Bold those results that are 25 mm or less; shade empty spaces (10%)]

Specimen #	Distance (mm)*	Specimen #	Distance (mm)*	Specimen #	Distance (mm)*	Specimen #	Distance (mm)
3	<b>0</b>	12	84				
8	<b>0</b>	39	<b>0</b>				
13	80	28	<b>0</b>				
19	90	47	<b>0</b>				
21	<b>0</b>	18	84				
29	<b>0</b>	43	<b>0</b>				
36	<b>0</b>	32	<b>0</b>				
40	<b>0</b>	22	<b>0</b>				
41	<b>0</b>	24	<b>0</b>				
45	<b>0</b>	34	<b>0</b>				
20	84						
5	<b>0</b>						

\* distance from steel ring to nearest char

Labels:

[Scan in all labels then add picture of carpet - print using colour printer]


 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-6	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

## 9 PRECISION AND BIAS

- 9.1 Precision - No statement concerning precision can be made at this time.
- 9.2 Bias -Since the true values of flammability samples are not known, bias cannot be determined.

## 10 SAMPLING

- 10.1 Sufficient sample to produce 48, 230 X 230 mm specimens (~ 30 sq ft).

 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-7	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

## APPENDIX I

### **Hazardous Products (Carpet) Regulations (Note 3)** (C.R.C., c. 923)

#### REGULATIONS RESPECTING THE ADVERTISING, SALE AND IMPORTATION OF HAZARDOUS PRODUCTS (CARPETS)

[SOR/91-264, s. 1(F)]

#### SHORT TITLE

1. These Regulations may be cited as the Hazardous Products (Carpet) Regulations.

#### INTERPRETATION

2. In these Regulations,

"Act" means the Hazardous Products Act; (Loi)

"dealer" means a person who is a manufacturer, processor or finisher of a textile product or a person who is engaged in the business of importing or selling a textile product; (fournisseur)

"product" means a carpet, carpeting (including carpet tiles), mat, matting or rug that is included in item 29 or 30 of Part II of Schedule I to the Act. (produit) SOR/91-264, s. 2.

#### REQUIREMENTS

3. (1) A product other than

(a) a product commonly known as a carpet tile, or


(b) a product that has a measurement greater than 2.16 square metres (24 square feet) or has a linear dimension greater than 1.8 metres (6 feet)

may be advertised or sold if it is marked in accordance with section 4.

(2) A product that is not intended for indoor use that

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**Note 3:** This consolidation is prepared for convenience only. For all purposes of interpreting and applying the law, users should consult the regulations, as registered by the Clerk of the Privy Council and published in Part II of the Canada Gazette.

 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-8	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

(a) is commonly known as carpet tile, or

(b) has a measurement greater than 2.16 square metres (24 square feet) or has a linear dimension greater than 1.8 metres (6 feet)

may be advertised or sold if it is marked in accordance with section 5. SOR/91-264, s. 3(F).

4. A product described in subsection 3(1) shall, at the time it is advertised or sold, have a label bearing the warning set out in section 5 or the following warning:

"Caution--Flammable--Do not use in locations exposed to open flame or sources of intense heat"

"Attention--Inflammable--Tenir éloigné de la flamme ou d'une source de chaleur intense"

SOR/91-264, s. 4(F).

5. A product described in subsection 3(2) shall, at the time it is advertised or sold, have a label bearing the following warning:

"Caution--Flammable--Do not use in locations exposed to open flame or sources of intense heat. Do not use indoors"

"Attention--Inflammable--Tenir éloigné de la flamme ou d'une source de chaleur intense. Ne pas utiliser à l'intérieur"

SOR/91-264, s. 5(F).

6. The warning referred to in sections 4 and 5 shall be clearly and prominently stated and shall be

(a) printed in letters that are easily legible and are of equal size and prominence; and

(b) set apart from any other graphic material on the label.

7. Where a product is prepackaged, the label required by section 4 or 5, as the case requires, shall be on the container of the product unless the label is applied to the product and the product is packaged in such a manner that the information on the label is clearly visible to the prospective purchaser when the product is in the container.

8. (1) A dealer may import a product that is not labelled in accordance with these Regulations if


(a) he imports the product solely for the purpose of resale;

(b) on or before the date of the importation, he sends to the inspector referred to in subsection (2) a notice containing the following information:

(i) a statement to the effect that he is making the importation,

(ii) the date when and place where the importation will be made,




 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-9	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

(iii) the nature and quantity of the product being imported, and

(iv) the address of the premises where the product will be labelled in accordance with these Regulations; and

(c) prior to reselling the product he notifies the inspector in writing that the product has been labelled in accordance with these Regulations.

(2) For the purpose of subsection (1), "inspector" means the hazardous products inspector, designated pursuant to section 4 of the Act, located at the place where the product being imported is to be labelled in accordance with these Regulations or, where there is no inspector located at such place, the inspector who is located nearest to that place.

 Health Santé Canada Canada	Title of publication-Titre de la publication Product Safety Reference Manual	Page	Effective En vigueur
	Book 5 - Laboratory Policies and Procedures	F04-10	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

APPENDIX II Method 27.6, of CGSB Standard 4-GP-2, *Flame Resistance - Methenamine Tablet Test*, published in February, 1973

Note: Paragraph 4.1 of this method is superseded by the Normal Sequential Sampling Plan

### 1. PURPOSE AND SCOPE

- 1.1 This method is intended for the determination of the flammability of finished textile floor covering materials when exposed to an ignition source (methenamine tablet) under specified conditions.
- 1.2 The method is applicable to all types of textile floor coverings regardless of fiber type or method of construction.

### 2. PRINCIPLE


- 2.1 Specimens of textile floor covering materials are dried, brought to room temperature, and placed horizontally in a test chamber in a draft-free environment. A methenamine tablet is placed in the center of the specimen, ignited, and the distance between any charred area of the floor covering and the inside edge of the specified frame is measured.

### 3. APPARATUS AND REAGENTS

- 3.1 **Test Chamber** – A box with inside dimensions of 12 x 12 x 12 in. (30 x 30 x 30 cm) made from hard-pressed asbestos cement board not less than 1/4 in. (6 mm) thick, open at the top and with all joints tightly sealed. A mirror mounted at an angle above the test chamber will assist in viewing the test specimens.
- 3.2 **Secondary Floor** – A rigid, removable, asbestos board approximately 11-1/4 x 11-1/4 in. (28 x 28 cm) and 1/8 in. (3 mm) thick, to fit the inside bottom of the box (*NOTE 1*).
- 3.3 **Frame** – A steel plate, 9 x 9 in. (23 x 23 cm), 1/4 in. (6 mm) thick, with an 8.0 in. (20.3 cm) diameter hole cut in the center of the plate.
- 3.4 Means for centering the methenamine tablet on the specimen.
- 3.5 **Methenamine Timed Burning Tablet (*NOTE 2*)** – The tablets shall have been stored in a desiccator over a desiccant for at least 24 hr. prior to use, since small quantities of sorbed water may cause the tablets to fracture when first ignited. The tablets shall be handled by mechanical means only.
- 3.6 **Desiccating Cabinet** – with shelves large enough to hold 9 in. (23 cm) square specimens separately in a horizontal position, and containing anhydrous magnesium perchlorate or equally effective dehydrating agent.
- 3.7 **Laboratory Drying Oven** at 105 ± 3°C, with or without forced draft.

*NOTE 1* Testing may be expedited if several secondary floor pieces are available.

*NOTE 2* Timed Burning Tablet, Product No. 1588, Eli Lilly Co. of Indianapolis, Indiana 46206, U.S.A. (Canadian source, Eli Lilly Co. (Canada) Ltd., 3650 Danforth Avenue, Scarborough, Ontario.) Storage of the tablets in a desiccator will prevent cracking on ignition. The normal variation in weight of different tablets will not affect the test results.

 Health Santé Canada Canada	Title of publication-Titre de la publication Product Safety Reference Manual  Book 5 - Laboratory Policies and Procedures	Page  F04-11	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

3.8 A polyethylene glove.

3.9 Steel Rule, graduated in 1/10 in. (2.5 mm).

#### 4. TEST SPECIMEN

4.1 Unless otherwise specified, from each sample to be tested cut eight specimens, each 9 in. (23 cm) square (*NOTE 3*).

4.2 Specimens shall be cut from areas of the sample free from creases, delamination or other distortion. Surface dust, lint or similar material shall be removed prior to testing.

#### 5. PROCEDURE

5.1 Condition the specimens in accordance with Method 2.

5.2 Place the conditioned specimens in an oven at  $105 \pm 3^{\circ}\text{C}$  for 2 hr. (*NOTE 4*), in such a way as to ensure free access of air on all sides.

5.3 Remove the specimens from the oven and immediately place them in the desiccating cabinet for 1 hr. or until they reach room temperature, making sure that the specimens are in a horizontal plane with the pile side (or traffic surface) up, and that they are not resting on one another.

5.4 Place the test chamber in a location free from drafts. Use of a laboratory fume hood, with all exhaust turned off and the door closed, is recommended.

5.5 Remove a test specimen from the desiccating cabinet and brush the pile into an upright position with a gloved hand. Place the specimen on the secondary floor of the test chamber, with the pile side (or traffic surface) up, exercising care that the specimen is in a horizontal plane; center the steel frame on top of the specimen.

5.6 Using the centering device, place a methenamine tablet flat and in the center of the specimen, and ignite the tablet by carefully bringing an ignition source in contact with the top of the tablet. Do not allow the ignition source to come in contact with the specimen. If more than 2 min. elapses between removal of the specimen from the desiccator and ignition of the tablet, or if a major fracture occurs in the tablet on ignition, repeat the test.


5.7 Terminate the test when flame and glow cease, or when combustion reaches any point on the inside edge of the frame.

5.8 Measure the shortest distance between the charred area and the inside edge of the steel frame, to the nearest 1/10 in. (2.5 mm).

5.9 Test the remaining specimens in the same way. After each specimen has been tested, remove the secondary floor from the chamber and free it of any residue that would prevent the next specimen from lying in a horizontal plane. Evacuate fumes from the test chamber, and allow sufficient time between tests for the chamber to cool to room temperature.


*NOTE 3* If the precision with which flammability is to be measured is specified, reference should be made to Method 1 of 4-GP-2 for procedures to determine the number of test specimens required, unless another sampling plan is specified. Otherwise test eight specimens.

*NOTE 4* Standard conditioning before drying is specified because storage conditions may cause some materials to be moist, and thus to require considerably more than 2 hr. drying time.

 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-12	Effective En vigueur 2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification 33

**6. REPORT**

- 6.1 Report the results obtained for each of the eight specimens.
- 6.2 Also report the number of this method (27.6 – 1973).


 Health Santé Canada Canada	Title of publication-Titre de la publication	Page	Effective En vigueur
	Product Safety Reference Manual	F04-13	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre			Amendment number- Numéro de la modification
Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			33

APPENDIX III      The Normal Sequential Sampling Plan of Canadian General Specifications Board (CGSB) Standard 4-GP-155: *Standard for Flammability of Soft Floor Coverings - Sampling Plans*, published in January, 1974

Tablet Tests	Number of Specimens Tested	Cumulative Number of Specimens Tested	Accept if Cumulative Number of Failures Equals or is less than	Continue Testing if Cumulative Number of Failures in this Range	Reject if Cumulative Number of Failures Equals or Exceeds
1st set	10	10	0	1-10	-
2nd "	3	13	1	2-13	-
3rd "	3	16	2	3-15	16
4th "	3	19	3	4-15	16
5th "	3	22	4	5-15	16
6th "	3	25	5	6-15	16
7th "	3	28	6	7-15	16
8th "	3	31	7	8-15	16
9th "	3	34	8	9-15	16
10th "	3	37	9	10-15	16
11th "	3	40	10	11-15	16
12th "	3	43	11	12-15	16
13th "	3	46	12	13-15	16
14th "	2	48	15	-	16

\*This sampling plan provides approximately 99% certainty that soft floor covering will be marketed with a U level superior to a selected quality level.

Note 2: The 14th set of specimens need be tested only if the cumulative number of failures at the completion of testing of the 13th set equals 14 or 15.

 Health Santé Canada Canada	Title of publication-Titre de la publication Product Safety Reference Manual  Book 5 - Laboratory Policies and Procedures	Page F04-14	Effective En vigueur  2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

APPENDIX IV Method 2, of CGSB Standard 4-GP-2, *Conditioning Textile Materials for Testing*, published in July, 1977

**1. PURPOSE AND SCOPE**

- 1.1 This method describes a procedure for conditioning textile materials to moisture equilibrium with the Standard Atmosphere.
- 1.2 The Standard Atmosphere is defined as air maintained at a relative humidity of 65% and a temperature of 20°C. For the purpose of the test methods described in this Standard, a variation of  $\pm 2\%$  relative humidity and  $\pm 2^\circ\text{C}$  from the defined Standard Atmosphere shall be permitted in the maintenance of the conditioning atmosphere.
- 1.3 Tests in which differences in the moisture content of the specimen will influence the results are carried out on material in moisture equilibrium with the Standard Atmosphere. (*NOTE 1*)

**2. PRINCIPLE**

- 2.1 The material is freely exposed to the Standard Atmosphere until its mass is substantially constant.

**3. APPARATUS**

- 3.1 A room or cabinet with means for maintaining the atmosphere therein within the prescribed limits of  $65 \pm 2\%$  relative humidity and  $20 \pm 2^\circ\text{C}$ , and also providing reasonably uniform circulation of the atmosphere throughout the enclosed space.
- 3.2 A recording instrument such as a thermograph to provide a record of the temperature variations with time, and an accurate reference thermometer for checking the recording instrument.
- 3.3 A recording instrument to provide a record of the variations in relative humidity with time, and an accurate reference instrument for calibrating the recording instrument. (*NOTE 2*)

**4. TEST SPECIMEN**


- 4.1 This method is applicable to textile material in any form. Since the rate at which moisture equilibrium is reached depends chiefly on the initial moisture content of the fiber, the surface area exposed to the Standard Atmosphere and the amount of air passing over the material, it is not recommended that textiles be conditioned in the form of cones or other tight packages. In such cases conditioning may be accelerated by preparing skeins of yarn or opening the package to provide free access to the Standard Atmosphere.

*NOTE 1* When Standard Atmospheric conditions are not available, tests may be carried out under prevailing atmospheric conditions, but it must be recognized that the results observed may not correspond with the results that would be obtained in the Standard Atmosphere. In cases of uncertainty or dispute, all specimens shall be brought to moisture equilibrium with the Standard Atmosphere and tested in this condition.

*NOTE 2* The hair hygrometer is a commonly used and convenient recording instrument but requires frequent calibration, as its accuracy in a given narrow range of humidities is affected by exposure to markedly lower or high humidities. Its relatively slow response to changes in humidity also makes it inaccurate as an indicator of the full extent of rapid changes in humidity.

For accurate measurement of the relative humidity at any given time, use may be made of a sling psychrometer, or of a wet and dry bulb hygrometer having a current of air blown or drawn over the wet bulb. These instruments are capable of measuring relative humidity with an accuracy of about 1%.

(Continued on p. 2)

 Health Santé Canada Canada	Title of publication-Titre de la publication Product Safety Reference Manual	Page	Effective En vigueur
	Book 5 - Laboratory Policies and Procedures	F04-15	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification  33

## 5. PROCEDURE

### 5.1 Preconditioning

5.1.1 Moisture equilibrium of the textile material with the Standard Atmosphere shall be approached by absorption from a lower moisture content. If the material has recently been exposed to an atmosphere of relative humidity higher than 50%, it should be preconditioned before placing it in the Standard Atmosphere. This may be accomplished by bringing the material to approximate moisture equilibrium with an atmosphere of to 10 to 40% relative humidity at a temperature not exceeding 50°C. Where a preconditioning room is not available, this can usually be achieved by freely exposing the material in a ventilated oven at 50°C for one to two hours. In cases of uncertainty the material should be preconditioned until constant mass is reached.

### 5.2 Conditioning

5.2.1 The material shall be brought to moisture equilibrium with the Standard Atmosphere by free exposure to this atmosphere. The material shall be considered to have reached moisture equilibrium when the change in mass of successive determinations made at intervals of not less than 15 min is not greater than 0.1%. (*NOTE 3*)

5.2.2 It is important that a large surface area of the material be exposed to the circulating air, as otherwise the mass may remain substantially constant over the specified time interval due to a very low rate of moisture absorption.


*NOTE 2 (cont.)* In using either instrument, an air velocity of 3 to 5 m/s, past the wet bulb is necessary to attain the true bulb temperature. The wet bulb should be covered with clean unsized bleached cotton cloth. The covering should be washed or replaced frequently, to ensure proper wetting of the bulb, particularly if distilled water is not used to moisten it.

If the sling psychrometer is used, it should be whirled for 45 to 60 s, stopped and read quickly. The wet bulb thermometer should be read first as its temperature will begin to rise almost immediately. Measurements should be repeated until successive readings do not differ by more than 2% R.H.

*NOTE 3* It is recognized that in practice the mass of textile materials is frequently not determined to assure that moisture equilibrium has been reached. Although such a procedure cannot be accepted in cases of dispute, it may be sufficient in routine testing to expose the material to the Standard Atmosphere for a reasonable period of time before it is tested. As a guide in this type of work the following conditioning periods are suggested:

Type of Material (fabric, or yarn in skein form)	Conditioning period (h)
Nylon	2
Acetate	4
Cotton	6
Viscose	8
Wool	8

The above periods are approximate and apply only to fabrics spread out in single thickness or to loose skeins of yarn that are exposed freely to the Standard Atmosphere in motion.

 Health Santé Canada Canada	Title of publication-Titre de la publication	Page	Effective En vigueur
	Product Safety Reference Manual		
Book 5 - Laboratory Policies and Procedures		F04-16	2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre			Amendment number- Numéro de la modification
Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			33

APPENDIX V Method 30.2, of CGSB Standard 4-GP-2, *Procedure for the Removal of Flame-retardant Treatments on Textile Floor Coverings*, published in July, 1974

## 1. PURPOSE AND SCOPE

1.1 The shampooing procedure described is intended for removing nonpermanent flame-retardant treatments applied to textile floor-covering materials.

## 2. PRINCIPLE

2.1 Specimens are wet out in distilled water. An aqueous solution of synthetic detergent is applied to the traffic surface. A lather is worked up with a roller, allowed to remain for 3 minutes and thoroughly rinsed off. The specimens are drained, the cleaning treatment repeated twice more, and the specimens dried at room temperature.

## 3. APPARATUS AND REAGENTS

- 3.1 Flat-bottom vessel at least 12 x 12 in. (30 x 30 cm), to contain the specimen.
- 3.2 Clear glass or other impermeable surface at least as large as the test specimen.
- 3.3 Cleaning solution (neutral anionic synthetic detergent): 1% aqueous solution of sodium alkylsulphate surfactant (*NOTE 1*).
- 3.4 Roller (*NOTE 2*): core length 9-1/2 in. (24 cm), outside diameter approximately 2-1/4 in. (6 cm), synthetic fabric pile (CGSB 22-GP-42, Type 1 or 2).
- 3.5 Small a.c. hand-type vacuum cleaner.

## 4. TEST SPECIMEN


- 4.1 Cut specimen 11 x 11 in. (28 x 28 cm) (*NOTE 3*).
- 4.2 Place a specimen in the flat-bottom vessel, cover with distilled water at room temperature, and allow it to remain for at least 5 min.
- 4.3 Remove the specimen and suspend it vertically until excess water has drained off (approximately 3 to 5 min.).

*NOTE 1* A satisfactory product is ORVUS WA Paste, available from The Proctor & Gamble Company Limited, 2 St. Clair Ave. W., P.O. Box 355, Terminal 'A', Toronto, Canada.

*NOTE 2* The paint-type roller described is preferred to a brush because it is easy to manipulate, spreads the cleaning solution evenly through all types of carpet pile, and is not itself affected (e.g., by matting).

*NOTE 3* This specimen size is recommended when the flammability of the floor covering specimen after shampooing is to be assessed by Method 27.6. If another flammability test method, with other requirements, is involved, suitable adjustments will have to be made.



 Health Santé Canada Canada	Title of publication-Titre de la publication <b>Product Safety Reference Manual</b>  Book 5 - Laboratory Policies and Procedures	Page F04-17	Effective En vigueur 2004-12-13
Chapter and/or Section;-Number and title-Chapitre ou section-Numéro et titre Part B: Test Methods Section, Method F-04 <b>TEST METHOD FOR EVALUATING TEXTILE FLOOR COVERINGS FOR FLAME RESISTANCE</b>			Amendment number- Numéro de la modification 33

## 5. PROCEDURE

- 5.1 Place the specimen, pile or traffic side up, on a glass or other impermeable surface and pour over it 25 ml of the cleaning solution (par. 3.3) at 40°C. With the roller (par. 3.4) dampened with distilled water at room temperature, move it backwards and forwards over the surface of the specimen, approximately 25 times, to work the solution into the pile or surface. Allow the suds to remain on the specimen for 3 min.
- 5.2 Rinse the specimen thoroughly in distilled water, either by hosing or by immersing in several changes of water. Suspend the specimen vertically until excess water has drained off (approximately 3 to 5 min.).
- 5.3 Repeat the shampooing treatment (par. 5.1 and 5.2) twice.
- 5.4 Dry the specimen at room temperature. If the pile is matted after drying, vacuum it lightly to raise the pile.



APPENDIX VI

Random Numbers for Use with Normal Sequential Sampling Plan

12	43	42	22	39	19	29	9	4	18	39	46
48	12	36	2	14	38	35	38	40	20	23	41
35	15	30	44	38	48	9	28	29	19	26	35
23	24	45	40	8	29	7	1	31	12	6	2
17	32	10	30	44	35	11	7	7	35	35	24
18	26	31	5	4	43	6	4	36	31	43	42
21	31	34	41	13	12	43	12	13	44	8	36
1	16	23	48	41	15	15	47	44	9	36	21
27	3	15	25	17	22	23	42	5	3	41	16
8	1	3	21	9	45	36	6	33	30	21	39
2	11	6	19	23	23	8	48	24	29	40	15
15	46	11	9	10	16	4	27	18	45	15	3
24	6	2	15	15	26	32	46	23	34	20	13
22	17	37	4	43	25	22	14	46	47	10	33
39	19	4	11	11	20	5	21	3	21	27	38
4	40	8	3	27	30	31	45	43	41	28	34
42	48	19	12	40	7	10	19	19	23	42	8
45	27	32	37	12	36	25	30	30	22	25	1
14	29	16	16	42	11	26	37	39	11	11	26
30	28	7	18	34	17	13	15	34	14	13	14
11	45	38	32	7	27	16	40	35	37	31	20
46	38	43	10	21	40	48	31	27	17	46	22
26	25	39	34	1	24	34	8	12	42	48	43
10	20	27	28	35	33	42	26	16	1	29	11
40	30	5	38	47	32	14	11	28	46	17	18
7	14	1	20	5	6	47	25	11	32	47	48
34	5	46	39	48	4	33	13	15	7	14	40
28	41	22	24	46	46	1	16	20	6	7	23
33	2	28	36	20	13	39	44	47	16	9	28
37	35	9	31	22	1	45	36	26	39	4	4
43	23	44	1	33	18	2	32	32	10	37	29
16	4	29	27	28	14	38	24	38	28	5	45
9	9	33	8	29	3	19	18	41	25	45	32
38	21	35	35	19	47	46	29	14	33	16	30
6	34	20	43	26	31	41	39	25	36	18	47
31	22	24	13	24	5	20	23	48	27	38	5
44	42	13	45	31	10	27	33	6	26	24	27
19	44	14	29	37	34	18	20	1	24	44	37
20	8	12	46	30	39	3	35	17	48	19	44
3	33	18	47	2	37	24	41	45	4	1	17
32	13	47	14	18	28	21	34	2	2	12	7
25	7	21	7	32	2	37	22	9	38	3	9
36	10	48	17	45	8	30	3	8	13	22	12
47	39	40	23	16	9	44	43	10	40	30	25
41	36	26	42	36	42	12	10	21	5	2	10
29	37	41	33	3	21	40	17	42	8	32	19
13	18	25	26	25	41	17	5	37	43	34	31
5	47	17	6	6	44	28	2	22	15	33	6