

Australian/New Zealand Standard®

Textile floor coverings—Tests and measurements

Method 2: Determination of thickness loss under dynamic loading

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TX/9 on Carpets. It is equivalent to, and has been reproduced from ISO 2094:1986, *Textile floor coverings—Determination of thickness loss under dynamic loading*. In Australia, the Standard supersedes AS 2111.2—1978, *Methods of test for textile floor coverings—Method 2: Determination of thickness loss under dynamic loading of textile floor coverings*.

An optional additional test for measuring, calculating and reporting pile thickness loss has been included. This test was a feature of the 1978 Australian Standard and has been retained for its use, for example, in resolving consumer complaints about flattening.

As this Standard is reproduced from an international Standard, the following applies:

- (a) Its number appears on the cover and title page while the international Standard number appears only on the cover.
- (b) In the source text, ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to international Standards should be replaced by equivalent Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		Australian or Joint Australian/New Zealand Standard	
ISO		AS	
139	Textiles—Standard atmospheres for conditioning and testing	2001	Methods of test for textiles
		2001.1	Conditioning procedures
1957	Machine-made textile floor coverings—Sampling and cutting specimens for physical tests	2119	Method for sampling and cutting specimens of textile floor coverings for testing
		AS/NZS	
1765	Machine-made textile floor coverings—Determination of thickness	2111	Textile floor coverings—Tests and measurements
		2111.1	Machine-made textile floor coverings—Determination of thickness



Appendix ZZ lists the Australian/New Zealand variations to ISO 2094:1986. The changes are indicated with a marginal bar against the relevant clause.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

Textile floor coverings — Determination of thickness loss under dynamic loading

1 Scope and field of application

This International Standard specifies a method for the determination of the thickness loss of textile floor coverings under dynamic loading.

It is applicable to all types of textile floor coverings with a surface that is level in height and construction.

It does not apply to other textile floor coverings unless the areas of different thickness or construction can be tested separately.

2 References

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 1765, *Machine-made textile floor coverings — Determination of thickness*.

ISO 1957, *Machine-made textile floor coverings — Sampling and cutting specimens for physical tests*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 thickness (of a textile floor covering): The distance between a reference plate on which the specimen rests and a parallel presser-foot applying a given pressure to the specimen. Ordinarily the thickness of a textile floor covering without

compression is measured under the standard pressure of 2,0 kPa¹⁾ applied to a circle of area between 300 and 1000 mm² within a larger area.

3.2 thickness loss (of a textile floor covering under dynamic loading): The difference between the thickness of the textile floor covering, measured under the standard pressure, before and after it has received a stated number of standard impacts.

4 Principle

The specimen is subjected to a cyclic-loading treatment in which a weight-piece, with two steel feet on its underside, repeatedly drops freely on to the specimen. The specimen is slowly traversed so that vertical shearing forces produced by the edges of the feet act on the requisite area of the specimen.

The thickness of the specimen is measured, before and after treatment, by the procedure specified in ISO 1765, except that the requirement of ISO 1765 not to measure within 20 mm of a change in level is not applicable.

5 Apparatus

5.1 Dynamic loading machine, with the general principle as shown in the figure, and meeting the following requirements:

A weight-piece (A) has a plate with two steel feet of rectangular cross-section attached to its underside. The cam (B) is shaped such that a cantilever (F) pivoting at D firstly raises the weight-piece and then allows it to fall freely from a height of 63,5 mm on to the specimen approximately every 4,3 s. Each

1) Equivalent to 0,20 gf/mm²