

Australian Standard™

AS 2001.2.6

Methods of test for textiles

Method 2.6: Physical tests—Determination of the number of wales and courses per unit length in knitted fabric

PREFACE

This Standard was prepared by the Standards Australia Committee TX-020 Testing of Textiles to supersede AS 2001.2.6—1981.

In the preparation of this Standard, cognizance was taken of BS 5441:1988, *Methods of test for knitted fabrics*.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

METHOD

1 SCOPE

This Standard sets out three test methods for determining the number of wales per unit length and the number of courses per unit length in knitted fabrics.

2 OBJECTIVE

The objective of this Standard is to provide manufacturers and testing bodies with a suitable test method for determining the number of wales and courses per unit length in knitted fabric.

3 APPLICATION

This Method is applicable to knitted fabrics of all types. Each test and its preferred application is as follows:

- (a) *Test A* The pin gauge test is suitable for all knitted fabrics.
NOTE: Test A is more laborious than Test B or Test C.
- (b) *Test B* The traversing thread counter test is suitable for all knitted fabrics where the wales or courses or pattern repeats are readily distinguishable.
- (c) *Test C* The counting glass test is suitable only for fabrics with fifty or more wales or courses within the field of view where the threads or pattern repeats are distinguishable.



4 REFERENCE DOCUMENTS

The following documents are referred to in this Standard:

AS

1199 Sampling procedures and tables for inspection by attributes

AS

2001 Methods of test for textiles

2001.1 Part 1: Conditioning procedures

2706 Numerical values—Rounding and interpretation of limiting values

5 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

5.1 Course

A row of loops across the width of the fabric. See Figure 1.

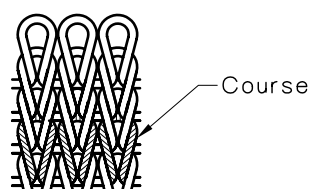


FIGURE 1 COURSE

5.2 Knit structure

A structure formed by the inter-meshing of loops of yarn.

5.3 Loop or stitch

The fundamental unit formed by 'kinking' (or bending) of the yarn(s). In a knitted structure, this is supported by and interconnected with other units.

5.4 Wale

A column of loops along the length of the fabric. See Figure 2.

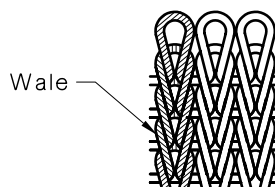


FIGURE 2 WALE

6 PRINCIPLE

The number of wales and courses in an accurately measured length are counted along a line at right angles to the course or wale being considered.

7 APPARATUS

7.1 For Test A

The following shall be used:

- (a) A gauge (see Figure 3) comprising a clamp holding two short pins, parallel to each other, so that the distance between the pin points is known to within an accuracy of 0.2 mm.
- (b) A hand magnifying lens.

7.2 For Test B

A traversing thread counter, consisting of a low-powered microscope mounted so that it can be traversed by means of a screw over a base graduated to an accuracy of 0.2 mm, is required.

NOTE: Types with an index line in the eyepiece or a pointer traversing with, and visible through the microscope are equally suitable.

7.3 For Test C

A counting glass the dimensions of which are known to within an accuracy of 0.2 mm is required.

8 SAMPLE SELECTION

8.1 Lot sampling

A lot sample shall be selected in accordance with the relevant material specification.

Where there is no material specification, the sample shall be selected using a sampling plan determined in accordance with AS 1199.

NOTE: To provide a sampling plan with a meaningful producer's risk and consumer's risk, an adequate specification needs to take into account the variability between rolls of fabric or batches of garments and between specimens from a sample taken from a roll of fabric or a batch of garments.

8.2 Laboratory sample

A laboratory sample shall be either—

- (a) taken from a lot sample which is representative of the bulk; or
- (b) a sample which has been submitted for testing and which may or may not be representative of the bulk.

8.3 Test specimen selection

The lengths of the test areas or specimens shall be such that the number of wales and courses counted, in each case, shall be not less than 50.

The positions where the determinations are to be made shall be selected to represent the fabric as fully as possible.

NOTE: In some cases the test may be carried out on whole pieces without necessarily cutting a test specimen.

9 PROCEDURE

9.1 General requirements

The following requirements shall apply:

- (a) Condition the test area or specimen in accordance with AS 2001.1.
- (b) Select a test (A, B or C) suitable for the knitted fabric construction (see Clause 3).