STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 2001.2.19—1988
Methods of test for textiles
Part 2.19: Physical tests—Determination of bursting force of textile fabrics—Ball burst method

RECONFIRMATION NOTICE

Technical Committee TX-020 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 6 July 2016.

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NOTES

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Australian Standard

METHODS OF TEST FOR TEXTILES

PART 2: PHYSICAL TESTS

AS 2001.2.19
DETERMINATION OF BURSTING FORCE OF TEXTILE FABRICS—BALL BURST METHOD

PREFACE

This Standard was prepared by the Association's Committee on Testing of Textiles. The test method is based on the American Society for Testing and Materials, ASTM D 3787—*Standard test method for bursting strength of knitted goods—Constant-rate-of-traverse (CRT) ball burst test.*

It should be noted that at the time that this Standard was published a Standard for the procedure to be used in taking a sample of a fabric was being prepared. It is recommended that if this Standard is available it should be consulted where necessary.

METHOD

1 SCOPE. This Standard sets out a method for determining the bursting force of textile fabrics in equilibrium with the standard atmosphere for testing and of fabrics in the wet state. The method uses a tensile machine based on the constant rate of extension principle.

2 APPLICATION. The method is applicable in a number of situations where a tensile strength test is not suitable, particularly where fabrics stretch is an important characteristic. The method is applicable to fabrics produced by weaving, knitting or felting and may be suitable for fabrics produced by other techniques. The method is applicable to fabrics whether or not they have been impregnated or coated with sizing or stiffening materials, rubber, plastics, etc.

3 REFERENCED DOCUMENTS. The documents below are referred to in this Standard.

AS

2001 Methods of test for textiles
Method 1: Conditioning procedures (AS 2001.1)

2193 Methods for calibration and grading of force—Measuring systems of testing machines

4 DEFINITION. For the purpose of this Standard, the definition below applies.

4.1 Bursting force—the maximum recorded force required to rupture the test specimen. It is expressed in newtons (N).

5 PRINCIPLE. A test specimen of fabric is firmly held in a clamping device and the force required to rupture the fabric with a metal ball is measured.

6 APPARATUS.

6.1 Conditioning facility. Means of providing and maintaining a standard atmosphere as described in AS 2001.1.

6.2 Force application device. A constant rate of extension (CRE) tensile testing machine as follows:

(a) The machine shall comply with the requirements of Grade B machines as specified in AS 2193.

(b) The machine shall provide a means for indicating the force applied to the test specimen clearly and continuously on a dial, scale or chart.

(c) The capacity of the machine or the selected range of the machine shall be such that the force required to rupture the test specimen shall be not less than 20 percent of the selected range of the machine.

(d) The force shall be applied by the machine at a constant rate of 300 ± 15 mm per minute.

(e) The force measuring mechanism in the machine shall allow little or no movement of the ball burst assembly in the direction perpendicular to the applied force.

6.3 Ball burst attachment. The CRE machine shall have an attachment fitted consisting of the following:

(a) A polished steel ball 25.0 ± 0.1 mm in diameter which replaces one of the jaws of the CRE machine.

(b) A clamping device consisting of two annular rings of an internal diameter of 45.00 ± 0.25 mm, which replaces the other jaw. The faces of the rings shall be perpendicular to the

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