STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

METHODS OF TEST FOR TEXTILES

PART 7—QUANTITATIVE ANALYSIS OF FIBRE MIXTURES

AS 2001.7.16
BINARY MIXTURES OF JUTE AND CERTAIN ANIMAL FIBRES (METHOD OF DETERMINING THE NITROGEN CONTENT)

PREFACE

This standard is one of a series of methods for the quantitative analysis of binary and ternary fibre mixtures.

It is derived from BS 4407, Methods of Test: Quantitative Analysis of Fibre Mixtures, and is technically identical with the analogous method contained therein in Section 4.

METHOD

1 SCOPE. This standard sets out a method for the quantitative analysis of binary mixtures of jute and certain animal fibres using a method of determining the nitrogen content.

2 APPLICATION. This method is applicable, after removal of non-fibrous matter, to binary mixtures of jute with wool or animal hair. The wool or animal hair component may consist solely of wool or animal hair, or of any mixtures of the two. This method is not applicable to textile mixtures containing non-fibrous matter (dyes, finishes, etc) with a nitrogen base.

3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 2001	Methods of Test for Textiles 2001.7.2 Part 7—Quantitative Analysis of Fibre Mixtures—General Requirements
BS 1428	Microchemical Apparatus Part B1—Nitrogen Determination Apparatus (Micro-Kjeldahl) Part B3—Nitrogen Determination Apparatus (Non-transfer-ence Micro-Kjeldahl).

4 PRINCIPLE. The nitrogen content of the mixture is determined and, from this and the known or assumed nitrogen contents of the two components, the proportion of each component is calculated.

5 REAGENTS. The following reagents, together with those specified in AS 2001.7.2, Clause 4, are required. All reagents shall be of recognized analytical reagent quality:

(a) *Toluene*.

(b) *Methanol*.

(c) *Sulphuric acid* (ρ_{20} 1840 kg/m^3).

(d) *Potassium sulphate* (nitrogen-free).

(e) *Selenium dioxide* (nitrogen-free).

(f) *Sodium hydroxide solution*, (400 g/L). Dissolve 400 g of sodium hydroxide in 400 mL to 500 mL of water and dilute to 1 L with water.

(g) *Mixed indicator*. Dissolve 0.1 g of methyl red in 95 mL of ethanol (950 mL/L) and 5 mL of water, and mix with 0.5 g of bromocresol green dissolved in 475 mL of ethanol (950 mL/L) and 25 mL of water.

(h) *Boric acid solution*. Dissolve 20 g of boric acid in 1 L of water.

(j) *Sulphuric acid*, 0.01 mol/L (standard volumetric solution).

6 APPARATUS. The following items of apparatus, together with those specified in AS 2001.7.2, Clause 5, are required:

(a) *Kjeldahl digestion flask*, 200 mL to 300 mL capacity.

(b) *Kjeldahl digestion apparatus* with steam injection. The apparatus described in BS 1428, Part B1 or B3 is suitable.

(c) *Titration apparatus*, allowing precision of 0.05 mL.

(d) *Graduated flask*, 200 mL.

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