STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard METHODS OF TEST FOR TEXTILES

PART 7—QUANTITATIVE ANALYSIS OF FIBRE MIXTURES

AS 2001.7.11 BINARY MIXTURES OF ACRYLICS, CERTAIN MODACRYLICS OR CERTAIN CHLOROFIBRES AND CERTAIN OTHER FIBRES (METHOD USING DIMETHYLFORMAMIDE)

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 Section 4.

METHOD

1 SCOPE. This standard describes a method for the quantitative analysis of binary mixtures of mixtures of acrylics, certain modacrylics or certain chlorofibres and certain other fibres using dimethylformamide as a solvent for the acrylic, modacrylic or chlorofibre.

2 APPLICATION. This method is applicable, after removal of non-fibrous matter, to binary mixtures of acrylics, certain modacrylics or certain chlorofibres with wool, animal hair, silk, cotton, cupro, polynosic (modal), viscose, nylon or polyester. It is equally applicable to acrylics and certain modacrylics, dyed with pre-metallized dyes, but not to those dyed with afterchrome dyes.

3 REFERENCED DOCUMENT. The following standard is referred to in this standard:

AS 2001 Methods of Test for Textiles
2001.7.2 Part 7—Quantitative Analysis of Fibre Mixtures—General Requirements.

4 PRINCIPLE. The acrylic, modacrylic or chlorofibre is dissolved from a known dry mass of the mixture using dimethlyformamide. The residue is collected, washed, dried and weighed. Its mass, corrected if necessary, is expressed as a percentage of the dry mass of the mixture. The percentage of acrylic, modacrylic or chlorofibre is found by difference.

5 REAGENTS. The following reagents, together with those specified in AS 2001.7.2, Clause 4, is required:

Dimethylformamide (boiling point 152°C to 154°C).

NOTE; This reagent is toxic and the use of a fume hood is essential. Impermeable gloves should be worn.

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

(a) *Conical flask*, 250 mL, glass-stoppered.

(b) *Apparatus* for maintaining the flask and contents at 90°C to 95°C.

7 PROCEDURE. Follow the procedure described in AS 2001.7.2, Clause 8.3, and proceed as follows:

(a) To the specimen contained in the glass-stoppered conical flask, add 80 mL of dimethylformamide, preheated to 90°C to 95°C, per gram of specimen. Insert the stopper, shake the flask to wet out the specimen and maintain the flask and contents for 1 h at 90°C to 95°C. Shake the flask and contents gently by hand five times during this period.

(b) Decant the liquid through a weighed filter crucible, retaining the fibres in the flask.

(c) Add a further 60 mL of dimethylformamide to the flask and heat for 30 min at 90°C to 95°C, shaking the flask and contents gently by hand twice during this period.

(d) Filter the contents of the flask through the filter crucible by means of suction.

(e) Transfer any residual fibres to the crucible by washing out the flask with cold water.

(f) Drain the crucible with suction.

(g) Wash the residue twice with cold water by filling the crucible, allowing it to drain under gravity, and then draining with suction.

ISBN 0 7262 2791 9