Australian Standard®

Methods of test for textiles

Method 7.19: Quantitative analysis of fibre mixtures—Binary mixtures of chlorofibres (homopolymers of vinyl chloride) and certain other fibres (Method using concentrated sulfuric acid)

PREFACE

The Standard was prepared by Standards Australia's Committee on Testing of Textiles. This Standard is one of a series of methods for the quantitative analysis of binary and ternary fibre mixtures.

It is derived from ISO 1833, *Textiles—Binary fibre mixtures—Quantitative chemical analysis*, and is technically identical with the analogous method contained therein in Section 16.

METHOD

1 SCOPE. This Standard sets out a method for the quantitative analysis of binary mixtures of chlorofibres (homopolymers of vinyl chloride) and certain other fibres using concentrated sulfuric acid as a solvent for the constituent other than chlorofibre. This method is applicable, after removal of non-fibrous matter, to binary mixtures of chlorofibres based on homopolymers of vinyl chloride with cotton, viscose, cupro, polynosic (modal), acetate, triacetate, nylon, polyester, and certain acrylic or certain modacrylic fibres. (The modacrylics concerned are those which give a limpid solution when immersed in concentrated sulfuric acid). It may be used in place of AS 2001.7.11 and AS 2001.7.12 in all cases where a preliminary test shows that the chlorofibres do not dissolve completely either in dimethylformamide or in the azeotropic mixture of carbon disulfide and acetone. Where samples are found to change state during drying at 105°C either by melting or fusing (e.g. some chlorinated PVC fibres) a lower temperature may be used provided there is no influence on the results.

2 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS
2001 Methods of test for textiles
2001.7.1 Method 7.1: Quantitative analysis of fibre mixtures—Test samples and test specimens
2001.7.2 Method 7.2: Quantitative analysis of fibre mixtures—General requirements

ISO
6741-1 Textiles—Fibres and yarns—Determination of commercial mass of consignments—Part 1 : Mass determination and calculations

3 PRINCIPLE. The constituent other than the chlorofibre is dissolved from a known dry mass of the mixture with concentrated sulfuric acid. The residue, consisting of the chlorofibre, 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 the second constituent is obtained by difference.