
**Textiles — Quantitative chemical
analysis —**

Part 7:

**Mixtures of polyamide and certain other
fibres (method using formic acid)**

Textiles — Analyse chimique quantitative —

*Partie 7: Mélanges de polyamide et de certaines autres fibres (méthode
à l'acide formique)*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS

© ISO 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 1833-7 was prepared by Technical Committee ISO/TC 38, *Textiles*.

This first edition of ISO 1833-7 cancels and replaces Clause 6 of ISO 1833:1977.

ISO 1833:1977 will be cancelled and replaced by ISO 1833-1, ISO 1833-3, ISO 1833-4, ISO 1833-5, ISO 1833-6, ISO 1833-7, ISO 1833-8, ISO 1833-9, ISO 1833-10, ISO 1833-11, ISO 1833-12, ISO 1833-13, ISO 1833-14, ISO 1833-15, ISO 1833-16, ISO 1833-17, ISO 1833-18 and ISO 1833-19.

ISO 1833 consists of the following parts, under the general title *Textiles — Quantitative chemical analysis*:

- *Part 1: General principles of testing*
- *Part 2: Ternary fibre mixtures*
- *Part 3: Mixtures of acetate and certain other fibres (method using acetone)*
- *Part 4: Mixtures of certain protein and certain other fibres (method using hypochlorite)*
- *Part 5: Mixtures of viscose, cupro or modal and cotton fibres (method using sodium zincate)*
- *Part 7: Mixtures of polyamide and certain other fibres (method using formic acid)*
- *Part 8: Mixtures of acetate and triacetate fibres (method using acetone)*
- *Part 9: Mixtures of acetate and triacetate fibres (method using benzyl alcohol)*
- *Part 10: Mixtures of triacetate or polylactide and certain other fibres (method using dichloromethane)*
- *Part 11: Mixtures of cellulose and polyester fibres (method using sulfuric acid)*
- *Part 12: Mixtures of acrylic, certain modacrylics, certain chlorofibres, certain elastanes and certain other fibres (method using dimethylformamide)*
- *Part 13: Mixtures of certain chlorofibres and certain other fibres (method using carbon disulfide/acetone)*

- Part 14: Mixtures of acetate and certain chlorofibres (method using acetic acid)
- Part 15: Mixtures of jute and certain animal fibres (method by determining nitrogen content)
- Part 16: Mixtures of polypropylene fibres and certain other fibres (method using xylene)
- Part 17: Mixtures of chlorofibres (homopolymers of vinyl chloride) and certain other fibres (method using sulfuric acid)
- Part 18: Mixtures of silk and wool or hair (method using sulfuric acid)
- Part 19: Mixtures of cellulose fibres and asbestos (method by heating)
- Part 21: Mixtures of chlorofibres, certain modacrylics, certain elastanes, acetates, triacetates and certain other fibres (method using cyclohexanone)

The following parts are under preparation:

- Part 6: Mixtures of viscose or certain types of cupro or modal or lyocell and cotton fibres (method using formic acid and zinc chloride)
- Part 20: Mixtures of elastane and certain other fibres (method using dimethylacetamide)
- Part 22: Mixtures of viscose or certain types of cupro or modal or lyocell and flax fibres (method using formic acid and zinc chlorate)
- Part 23: Mixtures of polyethylene and polypropylene (method using cyclohexanone)
- Part 24: Mixtures of polyester and some other fibres (method using phenol and tetrachloroethane)

This document is a preview generated by EVS

Textiles — Quantitative chemical analysis —

Part 7:

Mixtures of polyamide and certain other fibres (method using formic acid)

1 Scope

This part of ISO 1833 specifies a method, using formic acid, to determine the percentage of polyamide fibre, after removal of non-fibrous matter, in textiles made of binary mixtures of

— polyamide

and

— cotton, viscose, cupro, modal, polyester, polypropylene, chlorofibre, acrylic or glass fibre.

It is also applicable to mixtures with wool and animal hair, but when the wool content exceeds 25 %, the method described in ISO 1833-4 should be used.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1833-1, *Textiles — Quantitative chemical analysis — Part 1: General principles of testing*

3 Principle

The polyamide is dissolved out from a known dry mass of the mixture, with aqueous formic acid. 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 polyamide fibre is found by the difference.

4 Reagents

Use the reagents described in ISO 1833-1 together with those given in 4.1 and 4.2.

4.1 Formic acid, 80 % (mass fraction) (ρ 1,19 g/ml).

Dilute 880 ml of 90 % (mass fraction) formic acid (ρ 1,20 g/ml) to 1 l with water. Alternatively, dilute 780 ml of 98 % to 100 % (mass fraction) formic acid (ρ 1,22 g/ml) to 1 l with water. The concentration is not critical within the range 77 % to 83 % (mass fraction) formic acid.

NOTE Formic acid at 80 % (mass fraction) has a density $\rho = 1,186$ g/ml.