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Textiles – Quantitative chemical analysis – Part 17: Mixtures of chlorofibres (homopolymers of vinyl chloride) and certain other fibres (method using sulfuric acid) (ISO 1833-17:2006) English translation of DIN EN ISO 1833-17:2011-01

Textilien –
Quantitative chemische Analysen –
Teil 17: Mischungen aus Chlorfasern (Homopolymere des Vinylchlorids) und bestimmten anderen Fasern (Schwefelsäure-Verfahren) (ISO 1833-17:2006)
Englische Übersetzung von DIN EN ISO 1833-17:2011-01

Textiles –
Analyse chimique quantitative –
Partie 17: Mélanges de chlorofibres (homopolymères de chlorure de vinyle) et de certaines autres fibres (méthode à l'acide sulfurique) (ISO 1833-17:2006)
Traduction anglaise de DIN EN ISO 1833-17:2011-01

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A comma is used as the decimal marker.

National foreword

This standard has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textile and textile products" (Secretariat: BSI, United Kingdom).

The responsible German body involved in its preparation was the *Normenausschuss Materialprüfung* (Materials Testing Standards Committee), Working Committee NA 062-05-12 AA *Textilchemische Prüfverfahren und Fasertrennung.*

The Introduction of ISO 1833-1 is summarized below as a help to users of this standard:

In general, the methods described in the various parts of ISO 1833 are based on the selective solution of an individual component. Once a component is dissolved from a test specimen, the insoluble residue is weighed and the percentage of the soluble component(s) is calculated from loss in mass. ISO 1833-1 gives information that is common to all of these analytical methods for all fibre mixtures, regardless of their composition. This general information should be used when applying the other parts of the ISO 1833 series; each of these parts contains a more detailed description of a method that is applicable for a specific fibre mixture. If one of these methods is based on a principle other than selective solution, this is expressly stated and described in detail in the respective part of the standards series.

Fibre mixtures used during processing and, to a lesser extent, in finished textiles may contain fats, waxes or dressings which either occur naturally or are added to facilitate processing. Fibre mixtures may also contain salts and other water-soluble matter. Some or all of these substances can separate during analysis and be erroneously calculated as soluble fibre components. To avoid this error, non-fibrous matter should be removed before analysis. A method of pre-treatment for removing oils, fats, waxes and water-soluble matter is given in ISO 1833-1:2006, Annex A.

In addition, textiles may contain resins or other matter added to bind the fibres or to confer special properties, such as water repellence or crease resistance.

Such matter, including dyestuffs in exceptional cases, may interfere with the action of the reagent on the soluble components and/or may be partially or completely removed by the reagents. This type of added matter can thus also cause errors and should be removed before the sample is analysed. If it is impossible to remove such added matter, the methods are no longer applicable. Dye in dyed fibre is considered to be an integral part of the fibre and is not removed.

Most textile fibres contain water, the amount of which depends on the type of fibre and the relative humidity of the ambient air. These analyses are conducted on the basis of dry mass, and a procedure for determining the dry mass of analytical samples and residues is given in ISO 1833-1. The result is thus obtained on the basis of the dry mass of the dry fibres only.

Provisions have been made for recalculating results on the basis of

a) permissible deviations agreed upon for moisture content[1)]

b) permissible deviations agreed upon for humidity, as well as for

   1) the fibrous matter separated during pre-treatment, and

   2) non-fibrous matter (e.g. dressings, processing oils or sizing assistants) which can be considered as being a commonly used commercial article that is part of the fibre.

In some methods, the insoluble components of a mixture may be partially dissolved in the reagent used to dissolve the soluble component(s). Whenever possible, reagents have been chosen that have little or no effect on the insoluble fibres. If a loss in mass is known to occur during the analysis, the result should be corrected; correction factors are given for this purpose. These factors have been determined in several laboratories by treating, with the appropriate reagent as specified in the method of analysis, fibres cleaned by pre-treatment. These correction factors apply only to undegraded fibres. If the fibres have been degraded during processing, different correction factors may be necessary.

The methods described in this series apply for single determinations; at least two determinations should be made on separate samples, further determinations can be made where desired. Before the analyses are carried out, all fibres in the mixture should be identified. For the purposes of confirmation, it is recommended that alternative methods be used in which the component that would have made up the residue when using the standard method is dissolved first, unless this is not technically possible.

Where practically possible, the components of a mixture are to be manually separated if the method described in ISO 1833-1:2006, Annex B is to be primarily used instead of the chemical analytical methods described in the other parts of ISO 1833.

The DIN Standards corresponding to the International Standards referred to in this document are as follows:

ISO 1833-1	DIN EN ISO 1833-1
ISO 1833-12	DIN EN ISO 1833-12
ISO 1833-13	DIN EN ISO 1833-13

[1)] Commonly used conditioning values shall be used for each fibre, where these are available.