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BSI Standards Publication

Textiles — Determination of components in flax fibres

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This British Standard is the UK implementation of ISO 5773:2023.

The UK participation in its preparation was entrusted to Technical Committee TCI/100, Co-ordination of activities in textiles and clothing.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Textiles — Détermination des composants des fibres de lin



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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 23, *Fibres and yarns*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Textiles — Determination of components in flax fibres

1 Scope

This document specifies the test methods for the quantitative analysis of cellulose, hemicellulose, lignin, pectin, fat and wax content in flax fibres.

This document is applicable to flax fibres and can be used as a reference for testing other bast fibres.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1130, *Textile fibres — Some methods of sampling for testing*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4793, *Laboratory sintered (fritted) filters — Porosity grading, classification and designation*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Principle

Flax fibres were treated physically and chemically to extract and separate the components which were consequently subjected to gravimetric analysis, titration and spectrophotometry for quantitative determination.

5 Reagents

- 5.1 **Sodium hydroxide**, CAS No. 8012-01-9, with a purity of more than 95 %.
- 5.2 **Sulphuric acid**, CAS No. 7664-93-9, with a purity of 95 % to 98 %, $\rho = 1,84$ g/ml.
- 5.3 **Ammonium oxalate**, CAS No. 1113-38-8, with a purity of more than 99 %.
- 5.4 **Anthrone**, CAS No. 90-44-8, analytical grade.
- 5.5 **Grate 3 water**, in accordance with ISO 3696.
- 5.6 **Acetone**, CAS No. 67-64-1, with a purity of more than 99,5 %.