

STN	Textílie Stanovenie deformovateľnosti na tkaných a neskladaných textíliách (ISO 21765: 2020)	STN EN ISO 21765 80 6204
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Textiles - Determination of fabric deformability by forced mechanical distension (ISO 21765:2020)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/21

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English Version

**Textiles - Determination of fabric deformability by forced
mechanical distension (ISO 21765:2020)**

Textiles - Détermination de la déformabilité des étoffes
par distension forcée mécaniquement (ISO
21765:2020)

Textilien - Automatische Bestimmung der
Deformierbarkeit an Webstoffen und Gelegen (ISO
21765:2020)

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EN ISO 21765:2021 (E)

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European foreword

This document (EN ISO 21765:2021) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textiles and textile products" the secretariat of which is held by BSI.

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INTERNATIONAL STANDARD

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Textiles — Determination of fabric deformability by forced mechanical distension

*Textiles — Détermination de la déformabilité des étoffes par
distension forcée mécaniquement*



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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.

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 documents 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 24, *Conditioning atmospheres and physical tests for textile fabrics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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ISO 21765:2020(E)**Introduction**

The determination of the deformation characteristics is relevant for all production processes in which flat textile fabrics (including reinforcement textiles) are formed into a three-dimensional shape. This example is the case for upholstery applications or the majority of current liquid composite molding (LCM) processes. Knowledge about the development of deformation effects such as changes in fibre orientation, undulation, and gaps in the textile is crucial for the safe design of processes and components.

Textiles — Determination of fabric deformability by forced mechanical distension

1 Scope

This document specifies a method for the automatic determination of the deformability of textile fabrics, including continuous-fibre reinforcement textiles. This method is not applicable to resin impregnated fabrics.

The method is suitable for use with fabrics such as woven or knitted fabrics, nonwovens, non-crimp fabrics, fabrics made of glass rovings or untwisted carbon filament yarns intended for reinforced composite materials. When applying the method to multi-axial non-crimp fabrics, the evaluation of the fibre orientation and gaps only incorporates the uppermost layer.

The method can be used for fabrics treated with powder binder.

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 139, *Textiles — Standard atmospheres for conditioning and testing*

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