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Third edition
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Paper and board — Determination of tensile properties —

Part 2: Constant rate of elongation method (20 mm/min)

Papier et carton — Détermination des propriétés de traction —

Partie 2: Méthode à gradient d'allongement constant (20 mm/min)



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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.

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 1924-2 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*.

This third edition cancels and replaces the second edition (ISO 1924-2:1994), which has been technically revised with respect to terms and definitions (in order to be in line with the terms and definitions used in ISO 1924-3^[1]). The numbering of clauses and their contents have been changed to be congruent with ISO 1924-3.

ISO 1924 consists of the following parts, under the general title *Paper and board — Determination of tensile properties*¹⁾:

- *Part 2: Constant rate of elongation method (20 mm/min)*
- *Part 3: Constant rate of elongation method (100 mm/min)*

1) ISO 1924-1, *Constant rate of loading method*, was withdrawn in 2004 as it was considered obsolete.

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Introduction

The method for determination of tensile properties specified in this part of ISO 1924 is the one most commonly used. It is related to the method specified in ISO 1924-3. In this part of ISO 1924 (ISO 1924-2), the constant rate of elongation applied is 20 mm/min, whereas in ISO 1924-3, the constant rate of elongation applied is 100 mm/min.

Since the results of a tensile test depend on the rate of elongation applied, this part of ISO 1924 and ISO 1924-3 will not give the same results. The rate dependence can vary according to paper grade and is different for tensile strength, strain at break, tensile energy absorption and modulus of elasticity.

NOTE 1 In most cases, the tensile properties can increase by 5 % to 15 % when the rate of elongation is increased from 20 mm/min (180 mm test span length) to 100 mm/min (100 mm test span length).

NOTE 2 In this part of ISO 1924, the same terminology and symbols are used as in ISO 1924-3 and in general literature concerning materials physics and mechanics.