
**Alpine skis — Determination of
elastic properties**

Skis alpins — Détermination des caractéristiques élastiques



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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.

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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 5902 was prepared by Technical Committee ISO/TC 83, *Sports and recreational equipment*, Subcommittee SC 4, *Snowsports equipment*.

This second edition cancels and replaces the first edition (ISO 5902:1980), which has been technically revised.

Alpine skis — Determination of elastic properties

1 Scope

This International Standard specifies laboratory measurement methods to determine the elastic properties of alpine skis. Its purpose is to calculate the resistance of defined parts of the ski to bending and torsion.

The standard measurement procedures are recommended in order to ensure comparability between laboratory measurement data determined and published by ski manufacturers, institutions and others. In this International Standard no attempt is made to relate the measurement data to the quality of the ski.

2 Normative references

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

ISO 6289, *Skis — Vocabulary*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

spring constant

c

ratio of the force F applied to the ski, to the corresponding deflection f :

$$c = \frac{F}{f}$$

Note 1 to entry: Depending on the individual parts of the ski on which the force F is applied, one can define:

- the centre spring constant, c_M ;
- the shovel spring constant, c_S ;
- the rear spring constant, c_R ;
- the afterbody spring constant, c_A ;
- the forebody spring constant, c_B .

Note 2 to entry: See [Figure 1](#).