
Disc springs —
Part 2:
Technical specifications

Ressorts à disques —

Partie 2: Spécifications techniques

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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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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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 227, *Springs*.

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.

A list of all parts in the ISO 19690 series can be found on the ISO website.

Disc springs —

Part 2: Technical specifications

1 Scope

This document specifies two different grades of disc springs.

Grade A defines basic requirements of disc springs for static applications with low and moderate performance. Springs manufactured according to Grade A are not used for dynamic applications.

Grade B defines requirements on disc springs especially used for dynamic applications and high performance static applications. Disc springs according to Grade B ensure a better quality by higher demands on manufacturing processes and tolerance requirements. Grade B includes graphs showing the guaranteed fatigue life such as a function of stress.

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 683-1, *Heat-treatable steels, alloy steels and free-cutting steels — Part 1: Non-alloy steels for quenching and tempering*

ISO 683-2, *Heat-treatable steels, alloy steels and free-cutting steels — Part 2: Alloy steels for quenching and tempering*

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ISO 6507 (all parts), *Metallic materials — Vickers hardness test*

ISO 6508 (all parts), *Metallic materials — Rockwell hardness test*

ISO 16249, *Springs — Symbols*

ISO 26909, *Springs — Vocabulary*

EN 1654, *Copper and copper alloys — Strip for springs and connectors*

EN 10083-1, *Quenched and tempered steels — Technical delivery conditions for special steels*

EN 10083-2, *Quenched and tempered steels — Technical delivery conditions for unalloyed quality steels*

EN 10083-3, *Quenched and tempered steels — Technical delivery conditions for boron steels*

EN 10089, *Hot-rolled steels for quenched and tempered springs — Technical delivery conditions*

EN 10132-4, *Cold-rolled narrow steel strip for heat treatment — Technical delivery conditions — Part 4: Spring steels and other applications*

EN 10151, *Stainless steel strip for springs — Technical delivery conditions*

JIS G 3311, *Cold-rolled special steel strip*

JIS G 4801, *Spring steels*