

ISO 19690-2:2018 (E)

Disc springs — Part 2: Technical specifications

Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols and units
5	Dimensions and designation
5.1	General
5.2	Disc spring groups
5.3	Dimensional series
6	Grade A — Basic performance requirements for static applications
6.1	Material
6.2	Manufacturing process
6.3	Permissible stresses
6.4	Presetting
6.5	Surface condition and corrosion protection
6.6	Tolerances
6.6.1	Thickness
6.6.2	External- internal diameter and coaxiality
6.6.3	Free height
6.6.4	Spring load
6.7	Clearance between disc spring and guiding element
6.8	Hardness
6.9	Appearance
7	Grade B — Requirements on disc springs for dynamic applications and high-performance static applications
7.1	Material
7.2	Manufacturing process
7.3	Permissible stresses
7.3.1	Static load
7.3.2	Dynamic loading
7.4	Shot peening
7.5	Presetting
7.6	Creep and relaxation
7.7	Surface condition and corrosion protection
7.8	Tolerances
7.8.1	Thickness
7.8.2	External-internal diameter and coaxiality
7.8.3	Free height
7.8.4	Spring load
7.9	Clearance between disc spring and guiding element
7.10	Hardness
7.11	Appearance
Annex A	(informative) Spring dimensions
A.1	Spring dimensions, sizes, design value
A.1.1	Dimensional series A
A.1.2	Dimensional series B

- A.1.3** **Dimensional series C**
- A.2** **Example of spring load deflection curve**

Annex B (informative) Testing

- B.1** **General**
- B.2** **Testing devices**
- B.3** **Measurement methods**
- B.3.1** **General**
- B.3.2** **Thickness**
- B.3.3** **External diameter and internal diameter**
- B.3.4** **Free height**
- B.3.4.1** **General**
- B.3.4.2** **Measurement in the centre**
- B.3.4.3** **Measurement in the whole circumference**
- B.3.5** **Spring load**
- B.3.6** **Appearance test**
- B.3.7** **Check of dimensions and other characteristics**

Annex C (normative) Representative material grades

Page count: 29