

# INTERNATIONAL STANDARD

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION  
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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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## Pliers and nippers — General technical requirements

*Pinces et tenailles — Spécifications techniques générales*

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ISO 5743:1988

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Reference number  
ISO 5743 : 1988 (E)

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 5743 was prepared by Technical Committee ISO/TC 29, *Small tools*.

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This second edition cancels and replaces the first edition (ISO 5743 : 1982), of which it constitutes a minor revision.

# Pliers and nippers — General technical requirements

## 1 Scope

This International Standard specifies the general technical requirements to be met by pliers and nippers.

This International Standard applies neither to insulated tools for live intervention works nor to antistatic tools. Plastic coatings or plastic sleeves are intended for gripping comfort only.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5742 : 1982, *Pliers and nippers — Nomenclature*.

ISO 5744 : 1988, *Pliers and nippers — Methods of test*.

## 3 Handles

Handles shall be shaped to afford a comfortable grip and shall prevent accidental pinching of the hands.

Handles shall have one of the following finishes :

- a) smooth finished;
- b) black oxide finished;
- c) phosphate-coated;
- d) lacquered;
- e) electro-plated;
- f) plastic-coated, or with plastic sleeves;
- g) knurled.

## 4 Heads

### 4.1 Joint

The joint shall be constructed to allow free movement from the closed to the open position and shall be free from excessive side movement in any position that could impair the function of the tool.

### 4.2 Jaws

For all pliers the jaws shall meet at the point. Pliers and nippers for which other specifications are laid down in the dimensional standards are excepted.

The hardness of the gripping surfaces for all pliers except round nose pliers shall be 440 HV min. ( $\approx$  44 HRC). The hardness shall be measured in accordance with ISO 5744.

## 5 Tool finish

Tools shall be free from burrs, scale and non-functional sharp edges, and shall have a protective surface treatment to ensure that they reach the user in good condition.

The protective surface treatment should be carried out at the manufacturer's discretion. Typical surface finishes or treatments are as follows :

- a) natural finish;
- b) chemically produced oxide coating;
- c) chemically produced phosphate coating;
- d) polished;
- e) electrodeposited metallic coating;
- f) lacquered.

## 6 Designation

### 6.1 Nippers

The principal information for the designation of nippers shall be given in the following order and in accordance with ISO 5742 :

- a) direction and position of cutting edges;
- b) type and shape of cutting edges;
- c) field of application;
- d) type of joint;
- e) shape of handles in the longitudinal direction;
- f) type of finish required;
- g) dimensions.

## 6.2 Gripping and dual-purpose pliers

The principal information for the designation of gripping and dual-purpose pliers shall be given in the following order and in accordance with ISO 5742 :

- a) shape of nose in the transverse direction at the point;
- b) shape of nose in the longitudinal direction;
- c) with or without serrations;
- d) with or without grooves;
- e) field of application (for dual-purpose pliers, specify the test wire);
- f) shape of back of the nose;
- g) shape of handles in the longitudinal direction;
- h) dimensions.

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