

International Standard



5743

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Pliers and nippers — General technical requirements

Pinces et tenailles — Spécifications techniques générales

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Foreword

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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.

International Standard ISO 5743 was developed by Technical Committee ISO/TC 29, *Small tools*, and was circulated to the member bodies in April 1979.

It has been approved by the member bodies of the following countries :

Australia	Hungary	South Africa, Rep. of
Austria	India	Spain
Belgium	Israel	Sweden
Bulgaria	Italy	Switzerland
Canada	Japan	USA
Chile	Korea, Dem. P. Rep. of	USSR
Czechoslovakia	Libyan Arab Jamahiriya	Yugoslavia
France	Poland	
Germany, F.R.	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

United Kingdom

Pliers and nippers — General technical requirements

1 Scope and field of application

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

2 References

ISO 5742, *Pliers and nippers — Nomenclature*.

ISO 5744, *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;¹⁾
- 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 function.

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 minimum ($\approx$ 44 HRC). The hardness shall be measured according to ISO 5744.

5 Tool finish

Tools shall be free from burrs, non-functional sharp edges and scale, and shall be protectively treated to ensure that they reach the user in their original condition.

The tools shall have a surface and protective treatment, which should be carried out at the manufacturer's discretion. Typical surface finishes or treatments are given in the following examples :

- 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

For designation of nippers the essential information shall be given in the following order and in accordance with ISO 5742 :

- a) direction and position of cutter;
- b) type and shape of edge;
- 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

For designation of gripping and dual purpose pliers, the essential information shall be given in the following order and in accordance with ISO 5742 :

- a) shape of nose in the cross 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 test wire);
- f) shape of back of the nose;
- g) shape of handles in the longitudinal direction;
- h) dimensions.

1) Plastic-coated or plastic sleeves for gripping comfort only. Insulated tools are not covered by this International Standard.