

INTERNATIONAL STANDARD

**ISO
9657**

First edition
1989-12-01

Pliers and nippers for electronics — General technical requirements

Pinces pour l'électronique — Spécifications techniques générales

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 9657:1989

<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>



Reference number
ISO 9657 : 1989 (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 9657 was prepared by Technical Committee ISO/TC 29,
Small tools.

[ISO 9657:1989](https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-55b6/iso-9657-1989)

[https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-](https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-55b6/iso-9657-1989)

Annex A of this International Standard is for information only.

© ISO 1989

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization

Case postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Pliers and nippers for electronics — General technical requirements

1 Scope

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

These pliers and nippers for electronics are intended for use on electronic components, printed circuit boards, etc. Certain terms used in this International Standard are defined in ISO 5742.

This International Standard does not apply to tools intended for working on live electrical circuits and for antistatic applications.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8979:1988, *Pliers and nippers for electronics — Nomenclature.*

3 Handles

The hardness of the handles shall be 40 HRC min. The handles shall be shaped and equipped with sleeves to afford a comfortable grip.

The sleeves shall be securely fixed and resistant to oil and grease.

4 Heads

4.1 General

Unless otherwise specified, the hardness of the head shall be 40 HRC min.

4.2 Joint

The joint shall be constructed to allow free movement from the closed to the open position within the normal working range and shall be free from excessive side movement which could impair the function of the tool.

4.3 Jaws

Unless otherwise specified in the dimensional standards, the jaws of all pliers shall meet at the point. Cutting nippers shall have a minimum cutting edge hardness of 56 HRC.

Gripping pliers shall have a hardness of 40 HRC min. on the gripping surfaces.

No hardness values are specified for the jaws of round nose pliers.

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.

Typical surface finishes or treatments are as follows:

- natural finish (ground, lished or polished);
- oxide coating;
- phosphate coating;
- lacquered.

6 Designation

6.1 Cutting nippers

The principal information required for the designation of cutting nippers shall be given in the following order and in accordance with ISO 8979:

- direction and position of cutting edges;
- type and shape of cutting edges;
- type of joint;
- dimensions;
- type of finish required;
- field of application (e.g. size and type of wire, off-cut retention, and sleeve requirements).

6.2 Single-purpose and multi-purpose pliers

The principal information required for the designation of single-purpose and multi-purpose pliers shall be given in the following order and in accordance with ISO 8979:

- a) shape of the nose (end view at the point);
- b) shape of the nose (in the longitudinal direction);
- c) whether the jaws are serrated;
- d) whether the jaws have grooves;
- e) dimensions;

f) field of application (e.g. size and type of wire, off-cut retention, and sleeve requirements);

g) type of joint;

h) type of finish required.

For multi-purpose pliers with cutters, the following information shall also be given:

i) direction and position of cutting edges;

j) type and shape of cutting edges.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 9657:1989](https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989)

<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>

Annex A (informative)

Bibliography

- [1] ISO 5742:1982, *Pliers and nippers — Nomenclature.*
- [2] ISO 6508:1986, *Metallic materials — Hardness test — Rockwell test (scales A - B - C - D - E - F - G - H - K).*
- [3] ISO 9656:1989, *Pliers and nippers for electronics — Test methods.*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 9657:1989](https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989)
<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

[ISO 9657:1989](#)

<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

ISO 9657:1989

<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 9657:1989

<https://standards.iteh.ai/catalog/standards/sist/4739c651-e441-4ca1-9db8-0dc3af0855b6/iso-9657-1989>

UDC 621.881.4 : 621.3.002.54

Descriptors : electronics industry, tools, assembly tools, hand tools, pliers, specifications, designation.

Price based on 3 pages
