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Rubber household gloves — General requirements and test methods

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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 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses).*

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Rubber household gloves — General requirements and test methods

1 Scope

This document specifies the general requirements and relevant test methods for gloves made of natural rubber latex or synthetic rubber latex or blends of natural rubber and synthetic rubber lattices intended for household use.

This document is intended to serve as a guide to obtain gloves of consistent performance. It does not cover safe and proper application of the gloves with subsequent handling, packaging and storage procedures.

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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress–strain properties*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3071, *Textiles — Determination of pH of aqueous extract*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
hand
part of the body from the tip of the middle finger to the wrist

3.2
glove
equipment which protects the *hand* (3.1) or part of the hand against hazards

Note 1 to entry: It can additionally cover part of the forearm and arm.

3.3
glove palm
part of the *glove* (3.2) which covers the palm of the *hand* (3.1), i.e. from the wrist to the base of the fingers

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3.4
glove back
part of the *glove* (3.2) which covers the back of the *hand* (3.1), i.e. from the wrist to the base of the fingers

4 Materials and manufacture

Gloves are generally categorized by materials, designs and surface finishes. Materials include natural rubber latex, synthetic rubber latex and blends. The glove outer surface may be smooth or textured, with or without pattern on the surface while the glove inner surface may be with or without flock lining. In any case, the glove shall be either ambidextrous or in pairs (right hand, left hand), single or multi-layers (laminated).

Any glove made of materials and manufactured with designs and finishes described above that meet the requirements of this document is acceptable.

5 Sampling and selection of test pieces

5.1 Sampling

For reference purposes, unless otherwise stated, gloves shall be sampled and inspected in accordance with ISO 2859-1. The inspection levels and acceptance quality limits (AQLs) shall conform to those specified in Table 1.

Table 1 — Inspection levels and AQLs

Characteristic	Inspection level[a]	AQL[a]
General appearance	S-2	4,0
Dimensions (width, length, thickness)	S-2	4,0
Tensile properties (before and after ageing)	S-2	4,0
Tensile properties after immersion test	N[b] = 3	PASS[c]
pH value	N[b] = 3	PASS[d]

[a] When a lot size cannot be determined, a lot size of 35 001 to 150 000 shall be assumed.
[b] *N* means a number of gloves.
[c] Median value of each glove meets the requirement.
[d] Average value meets the requirement.

5.2 Selection of test pieces

Where test pieces are required, they shall be taken from the palm or the back or the cuff of glove, the surface being free of embossing.

6 Requirements

6.1 General

The gloves shall have a uniform finish and be free from discoloration, thin spots, air bubbles, embedded particles, tackiness and other blemishes likely to affect serviceability (visual inspection).

6.2 Dimensions

Gloves shall comply with the dimensions for palm width, length and thickness given in Table 2, using the inspection level and AQL given in Table 1.

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