
**Protective equipment for martial
arts —**

**Part 3:
Additional requirements and test
methods for trunk protectors**

iTEH Standards
Équipement de protection pour les arts martiaux —
Partie 3: Exigences et méthodes d'essai complémentaires relatives aux
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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 83, *Sports and other recreational facilities and equipment*, Subcommittee SC 6, *Martial arts*.

A list of all parts in the ISO 21924 series can be found on the ISO website.

ISO 21924-3:2017

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Protective equipment for martial arts —

Part 3: Additional requirements and test methods for trunk protectors

1 Scope

This document specifies additional requirements and test methods for trunk protectors used in unarmed martial arts such as taekwondo, karate, kick-boxing and similar disciplines.

It also applies to breast protectors for men.

For general requirements and test methods for protective equipment for martial arts, see ISO 21924-1.

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 21924-1:2017, *Protective equipment for martial arts — Part 1: General requirements and test methods*
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3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21924-1 apply.

<https://standards.iteh.ai/catalog/standards/iso/66505bb5-6751-4283-bc7a-1002a35988a2/iso-21924-3-2017>
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Requirements

4.1 Sizing

The manufacturer shall indicate in centimetres the range of the wearer's height for which this protector is designed.

4.2 Combinations

Trunk protectors can be used in combination with other protectors for martial arts.

In the case of combined use, the requirements specified for the individual protectors are also to apply.

Possible combinations shall be indicated in the information supplied by the manufacturer.

If combined use is not permitted by the manufacturer, this restriction shall be indicated in the information supplied by the manufacturer.

4.3 Restraint

A restraint system shall be supplied by the manufacturer which enables the user to attach trunk protectors with the support of no more than one assistant.

For karate, the fixing systems shall be only textiles. They shall never consist of metal, plastic or similar hard materials.

4.4 Zone of protection

For location and dimensions of the zone of protection, see [Figure 1](#) and [Table 1](#).

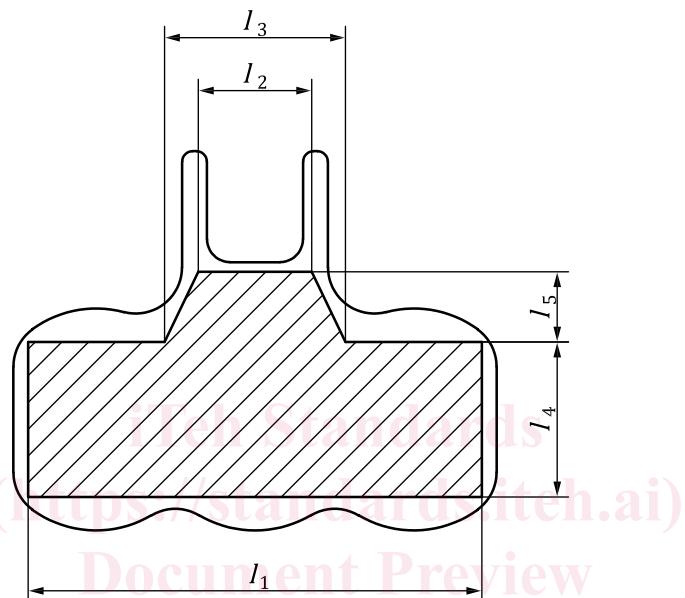


Figure 1 — Location of the zone of protection of trunk protectors

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Table 1 — Zone of protection of trunk protectors

Dimensions in millimetres

Wearer's height	l_1 min.	l_2 min.	l_3 min.	l_4 min.	l_5 min.
<1 340	610	140	170	150	90
1 340 to 1 520	660	150	190	160	100
>1 520 to 1 700	710	160	210	175	110
>1 700 to 1 880	760	180	230	190	130
>1 880	810	200	250	210	150

4.5 Impact performance

Trunk protectors comply with this document if the worst result after testing in accordance with [5.5](#) meets the following requirements:

- impact energy: 12 J;
- impact energy for karate: 2,6 J;
- peak force: max. 3 kN;
- positions to be tested: min. 3.