First edition 2002-07-01

# Protective clothing — Gloves and arm guards protecting against cuts and stabs by hand knives —

# Part 3:

Impact cut test for fabric, leather and other materials

Vêtements de protection — Gants et protège-bras contre les coupures et les coups de couteaux à main —

Partie 3: Essai de coupure par impact pour étoffes, cuir et autres matériaux



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 13999 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13999-3 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing*. It is based on EN 1082-3:2000.

ISO 13999 consists of the following parts, under the general title *Protective clothing* — *Gloves and arm guards* protecting against cuts and stabs by hand knives:

- Part 1: Chain-mail gloves and arm guards
- Part 2: Gloves and arm guards made of material other than chain-mail
- Part 3: Impact cut test for fabric, leather and other materials

Annex A of this part of ISO 13999 is for information only.

# Introduction

This test is based on the impact penetration test given in ISO 13998. It differs in that the blade-holding block and blade weigh 110 g rather than 1 000 g. The test specimen support is also changed to suit the testing of fabric, leather and other materials. The test is designed particularly to assess the stab resistance of materials for gloves and arm guards. The test is also suitable for assessing gloves exposed to severe abrasion and cutting threats such as motorcyclists' gloves, working gloves for handling concrete blocks or razor wire, or protective leggings and trousers for refuse collectors. Severe abrasion is a process involving multiple cuts and this test is a good indicator of abrasion resistance of the whole thickness of a material or sequence of materials.

It has been assumed in the drafting of this part of ISO 13999 that the execution of its provisions is entrusted to appropriately qualified and experienced people, for whose guidance it has been prepared. The apparatus described should only be used by competent persons and requires safeguards to prevent, as far as is reasonably practicable, injury to the operator and other persons.