ISO 13998:2003-01 (E)

Protective clothing - Aprons, trousers and vests protecting against cuts and stabs by hand knives

Contents

Page

Foreword vi

Introduction 1

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Performance level classification 5

5 Requirements 5
5.1 Innocuousness 5
5.2 Sizing 5
5.3 Minimum dimensions of zones of protection 5
5.4 Support and restraint of aprons, divided aprons and protective trousers 7
5.5 Ergonomic requirements 8
5.6 Mass 8
5.7 Penetration resistance 9
5.8 Cut resistance of performance level 1 garments 9
5.9 Tensile strength of metal rings 9
5.10 Water permeability (optional) 9

6 Test apparatus 9
6.1 Accuracy of test instruments 9
6.2 Gauges for interstices 9
6.3 Knife impact penetration testing apparatus 10
6.4 Tensile strength testing apparatus 15
6.5 Cut resistance apparatus 15
6.6 Water permeability 15

7 Test procedures 16
7.1 General 16
7.2 Test specimens 16
7.3 Innocuousness 16
7.4 Sizing 16
7.5 Measurement of the dimensions of zones of protection 16
7.6 Support and restraint testing of aprons and protective vests 17
7.7 Ergonomic testing 18
7.8 Determination of mass 19
7.9 Penetration testing 19
7.10 Cut resistance testing 19
7.11 Tensile strength testing 20
7.12 Water permeability measurement 20

8 Marking 20

9 Information supplied by the manufacturer 21

10 Pictograms 22

Annex A (informative) Advice on risk assessment, and the selection and fitting of different sizes of apron and other garments **23**

A.1 Scope **23**
A.2 Content **23**
A.3 Risk assessment **23**
A.4 Knife profiles **25**
A.5 PPE performance levels and garment types **26**
A.6 Apron sizing and fit **26**
A.6.1 General **26**
A.6.2 Minimum body coverage by aprons **26**
A.6.3 Straps for aprons **27**
A.6.4 Performance Level 2 garments with extended areas of protection **27**

Annex B (informative) Testing for imperfect welds **28**

B.1 Scope **28**
B.2 Content **28**
B.3 Background of the test **28**
B.4 Principle of the test **28**
B.5 Types of tensile strength testing devices **28**

Annex ZZ Corresponding International and European Standards for which equivalents are not given in the text **30**

Bibliography **31**