DIN EN ISO 11393-2:2020-03 (E)

Protective clothing for users of hand-held chainsaws - Part 2: Performance requirements and test methods for leg protectors (ISO 11393 -2:2018)

Contents

Page

European foreword ... **4**

Annex ZA (informative) **Relationship between this European Standard and the essential requirements of REGULATION (EU) 2016/425 of the European Parliament and of the Council of March 2016 on personal protective equipment aimed to be covered** ... **5**

Foreword ... **7**

Introduction ... **9**

1 Scope ... **10**

2 Normative references ... **10**

3 Terms and definitions ... **10**

4 Requirements ... **12**
4.1 General ... 12
4.2 Innocuousness ... 12
4.3 Sizing ... 12
4.4 Ergonomics ... 12
4.5 Dimensional and other changes ... 13
4.5.1 Dimensional change ... 13
4.5.2 Other changes as a consequence of cleaning ... 13
4.6 Protective coverage ... 13
4.6.1 General designs of leg protectors ... 13
4.6.2 Design A ... 14
4.6.3 Design B (chaps) ... 16
4.6.4 Design C ... 18
4.7 Resistance to cutting by a chainsaw ... 19
4.7.1 Classification according to chain speed ... 19
4.7.2 Requirements for cut resistance ... 19
4.8 Requirements for strength of attachment of protective insert of trousers, chaps and strap attachment for chaps ... 19
4.8.1 Trousers and leggings ... 19
4.8.2 Chaps ... 20

5 Test specimens for cut testing ... **20**

6 Test methods ... **20**
6.1 Pre-treatment ... 20
6.1.1 Cleaning ... 20
6.1.2 Pre-treatment for testing the effect of temperature and spinning on the structure of the protective insert ... 21
6.2 Measurement of dimensional change ... 21
6.3 Measurement of protective coverage ... 21
6.3.1 General ... 21
6.3.2 Procedure for trousers and leggings ... 21
6.3.3 Procedure for chaps ... 22
6.4 Testing of resistance to cutting ... 22
6.4.1 Purpose of testing ... 22
6.4.2 Test specimens ... 22
6.4.3 Apparatus ... 22
6.4.4 Mounting of test specimens ... 22
6.4.5 Test procedure ... 22

6.5 Measurement of the strength of the protective insert attachment 24
6.5.1 General 24
6.5.2 Test specimens 24
6.5.3 Apparatus 24
6.5.4 Test procedure 25
6.6 Ergonomic testing 26
6.6.1 Ergonomic assessment 26
6.6.2 Procedures 26
6.6.3 Test for surface conditions 27
6.7 Test report 27
7 Marking 27
8 Pictogram 28
9 Information to be supplied by the manufacturer 28
Annex A (informative) **Selection of design A, design B or design C 30**
Bibliography 31