



## INSTITUTE FOR TESTING AND CERTIFICATION, INC.

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## EVALUATION REPORT

Ref. No.: 723302179/2021

**Customer:** Fairtex Equipment Company Limited  
99/5 Moo 3 Soi Boonthamanusorn  
Bangpiee  
10540 Samutprakam  
THAILAND

**Product:** Shin Instep Protectors  
Types: SP3, SP5, SP6, SP7

**Appendix:** Drawing of the Product

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## Introduction

This Evaluation Report was issued on the basis of Application No. 723302179 for the assessment of conformity of personal protective equipment (PPE) with the basic requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

This assessment should prove the fulfilment of EU legislation requirements for the purpose of the access of the assessed products to the EU market.

### 1. Identification of assessed personal protective equipment

A detailed description of the design and structure, including the drawing documentation and specifications of materials used, is given in the file of technical documentation of the product called Shin Instep Protector, types: SP3, SP5, SP6, SP7. The address of the place of production is given in the technical documentation under the code 0115542004937.

The submitted documentation covers the following models and alternatives of the product:

#### Shin Instep Protectors

Types: SP3, SP5, SP6, SP7

#### Design and used material:

All protectors are made of artificial leather in different colours, and flexible textile knitwear with elastic fibre, which guarantees the retention of the product on the limb (model SP 6) or plastic straps with Velcro fasteners (models SP3, SP5, SP7). Zones of protection of these protectors are fulfilled by shaped synthetic foam. The protectors are manufactured in following sizes:

- S – for body height 1340 - 1520 mm
- M – for body height 1520 – 1700 mm
- L – for body height 1700 – 1880 mm
- XL – for body height >1880 mm

Basic composition of Shin Instep Protectors, types: SP3, SP5, SP6, SP7 is described in Table I. Drawings of the assessed PPE see Annex hereto.

**Table I: Material composition**

Part	Material			
	SP3	SP5	SP6	SP7
Upper material	smooth leather fabric (black, red, blue colour)		smooth (glossy) leather fabric (black, red, blue, white colour)	smooth leather fabric (black, red, blue colour)
Lining	textile knitwear black colour			
Fulfilment inside	synthetic foam			
Fastening	plastic straps with Velcro fasteners, elastic straps		elastic material, elastic straps	plastic straps with Velcro fasteners, elastic straps



Intended use of protective personal equipment:

The product is ranked among the personal protective equipment the fundamental purpose of which is protection of body from injuries that may be sustained during accidents in the sport spheres for which the protectors are intended. The protectors afford protection of forearm, of shin and instep part of leg – against legs impacts and against accidents by fall. They provide protection against contusions, abrasions, lacerated wounds, fractures, etc. However, assessed equipment do not provide protection against all types of serious injuries which can occur during the martial arts sports.

Classification of protective personal equipment:

Shin Instep Protectors, types: SP3, SP5, SP6, SP7 was classified as PPE Category II by the manufacturer.

## **2. Technical documentation**

Technical documentation was submitted in the English language to assess the conformity of Shin Instep Protectors, types: SP3, SP5, SP6, SP7 on 2021-08-11. The file of technical documentation contains the items in according to Annex III of the Regulation (EU) 2016/425 of the European Parliament.

## **3. Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC**

### **3.1 Basic requirements for the product and its specification in technical specifications**

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC setting out technical requirements for personal protective equipment.

Tables No. II to IV state the analysis of applicability of basic requirements according to Annex II of Regulation (EU) 2016/425 in the right column, supplemented in case of applicable requirements by articles of harmonised standards stated in their harmonisation annex ZA or other technical specifications used for proving the conformity with respective partial requirement. "A" letter in the third column of the tables means that these requirements has been used for the given PPE, the "N/A" abbreviation (not applicable) means the requirement does not apply to the given PPE because it is irrelevant for the given intended use and/or the material used.

Column 4 of Tables No. II – IV states the articles of harmonised standards which are linked, by means of cross links in the harmonisation annex ZA, to the respective basic requirement of Regulation (EU) 2016/425. Meeting these articles of the harmonised standard proves the conformity of the product with the given basic requirement stated in the right column.

The fifth column of Tables No. II - IV states the articles of non-harmonised technical specifications by which the manufacturer proves the conformity with the respective basic requirement which is not included in harmonisation. These can be articles of non-harmonised national or international standards as well as articles of harmonised standards which are not connected with the given requirement by a link in the harmonisation annex ZA. In extraordinary cases, the respective basic requirement can be set quite specifically by the Regulation so the conformity can be assessed directly with this article of the Regulation without any necessity to specify the required by means of a harmonised standard or other technical specification.

In case of applicable requirements, the last column of Tables No. II - IV states the assessment of the given requirement, whether PPE passes or does not pass. "P" letter means PPE passes the given requirement, "N/P" means it does not pass it.

**Table II: Overview of basic requirements and technical specifications used in the PPE design. General requirements applicable to all PPE**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
1.1	Design principles	A	EN 13277-1 Art. from 4.1 to 4.6 EN 13277-2 Art. from 4.1 to 4.5		P
1.1.1	Ergonomics	A	EN 13277-1 Art. 4 EN 13277-2 Art. 4		P
1.1.2	Levels and classes of protection	A		See requirement 1.1.2.1 and 1.1.2.2 below	P
1.1.2.1	Optimum level of protection	A	EN 13277-1 Art. 4.5, 4.6 EN 13277-2 Art. 4.5, 4.6		P
1.1.2.2	Classes of protection appropriate to different levels of risks	A	EN 13277-1 Art. 4.5, 4.6 EN 13277-2 Art. 4.5, 4.6		P
1.2	Innocuousness of PPE	A	EN 13277-1 Art. 4.2 EN 13277-2 Art. 4.2		P
1.2.1	Absence of risks and other inherent nuisance factors	A	EN 13277-1 Art. 4 EN 13277-2 Art. 4		P
1.2.1.1	Suitable constituent materials	A	EN 13277-1 Art. 4.2 EN 13277-2 Art. 4.2		P
1.2.1.2	Satisfactory surface condition of all PPE parts in contact with the user	A	EN 13277-1 Art. 4.2, 4.3 EN 13277-2 Art. 4.2, 4.3		P
1.2.1.3	Maximum permissible user impediment	A	EN 13277-1 Art. 4.1 EN 13277-2 Art. 4.1		P
1.3	Comfort and effectiveness	A	EN 13277-1 Art. 4.4, 6 EN 13277-2 Art. from 4.1 to 4.3		P
1.3.1	Adaptation of PPE to user morphology	A	EN 13277-1 Art. 4.1, 4.3, 4.4 EN 13277-2 Art. 4.1, 4.3, 4.4		P
1.3.2	Lightness and design strength	A	EN 13277-1 Art. 4.3, 4.6, 7 EN 13277-2 Art. 4.3, 4.6, 7		P
1.3.3	Compatibility of different classes or types of PPE designed for simultaneous use	N/A			
1.3.4	Protective clothing containing removable protectors	N/A			



**Table II: Overview of basic requirements and technical specifications used in the PPE design. General requirements applicable to all PPE**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
1.4	Manufacturer's instructions and information	A	EN 13277-1 Art. 6, 7, EN 13277-2 Art. 6, 7		P

**Table III: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements common to several classes or types of PPE**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
2.1	PPE incorporating adjustment systems	A	EN 13277-1 Art. 4.3 EN 13277-2 Art. 4.3		P
2.2	PPE enclosing the parts of the body to be protected	A	EN 13277-1 Art. 4.2 EN 13277-2 Art. 4.2		P
2.3	PPE for the face, eyes and respiratory system	N/A			
2.4	PPE subject to ageing	A	EN 13277-1 Art. 7 EN 13277-2 Art. 7		P
2.5	PPE which may be caught up during use	N/A			
2.6	PPE for use in potentially explosive atmospheres	N/A			
2.7	PPE Intended for rapid Intervention or to be put on or removed rapidly	N/A			
2.8	PPE for intervention in very dangerous situations	N/A			
2.9	PPE Incorporating components which can be adjusted or removed by the user	A	EN 13277-2 Art. 4.2		P
2.10	PPE for connection to complementary equipment external to the PPE	N/A			
2.11	PPE incorporating a fluid circulation system	N/A			
2.12	PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	A	EN 13277-2 Art. 6		P



**Table III: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements common to several classes or types of PPE**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
2.13	PPE capable of signalling the user's presence visually	N/A			
2.14	'Multi-risk' PPE	N/A			

**Table IV: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements specific to particular risks**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
3.1	Protection against mechanical impact	A	EN 13277-2 Art. 4.4, 4.5		P
3.1.1	Impact caused by falling or ejected objects and collision of parts of the body with an obstacle	A	EN 13277-2 Art. 4.4, 4.5		P
3.1.2	Falls	N/A			
3.1.2.1	Prevention of falls due to slipping	N/A			
3.1.2.2	Prevention of falls from a height	N/A			
3.1.3	Mechanical vibration	N/A			
3.2	Protection against static compression of part of the body	N/A			
3.3	Protection against mechanical injuries	A	EN 13277-2 Art. 4.5, 4.6		P
3.4	Protection in liquids	N/A			
3.4.1	Prevention of drowning	N/A			
3.4.2	Buoyancy aids	N/A			
3.5	Protection against the harmful effects of noise	N/A			
3.6	Protection against heat and/or fire	N/A			
3.6.1	PPE constituent materials and other components	N/A			
3.6.2	Complete PPE ready for use	N/A			
3.7	Protection against cold	N/A			
3.7.1	PPE constituent materials and other components	N/A			



**Table IV: Overview of basic requirements and technical specifications used in the PPE designing. Additional requirements specific to particular risks**

Requirement number in Annex II	Requirement description	Application A – N/A	Article of the harmonised standard specifying the requirement (according to Annex ZA)	Other technical specification or the manner of proving the compliance with the requirement	Assessment P – N/P
3.7.2	Complete PPE ready for use	N/A			
3.8	Protection against electric shock	N/A			
3.8.1	Insulating equipment	N/A			
3.8.2	Conductive equipment	N/A			
3.9	Radiation protection	N/A			
3.9.1	Non-ionising radiation	N/A			
3.9.2	Ionising radiation	N/A			
3.9.2.1	Protection against external radioactive contamination	N/A			
3.9.2.2	Protection against external irradiation	N/A			
3.10	Protection against substances and mixtures which are hazardous to health and against harmful biological agents	N/A			
3.10.1	Respiratory protection	N/A			
3.10.2	Protection against cutaneous and ocular contact	N/A			
3.11	Diving equipment	N/A			

When designing the product, the manufacturer applied the following standards harmonised to Regulation (EU) 2016/425, see Table V:

**Table V: Relevant harmonized standards**

Technical standard	Name
ČSN EN 13277-1:2001 (EN 13277-1:2000)	Ochranné prostředky pro bojové sporty - Část 1: Všeobecné požadavky (Protective equipment for martial arts - Part 1: General requirements and test methods)
ČSN EN 13277-2:2001 (EN 13277-2:2000)	Ochranné prostředky pro bojové sporty - Část 2: Doplnkové požadavky a zkušební metody pro chrániče nártu, holeně a předloktí (Protective equipment for martial arts - Part 2: Additional requirements and test methods for instep protectors, shin protectors and forearm protectors)

### 3.2 Indicators specifying basic requirements and test methods

Indicators specifying applicable basic requirements (marked with "A" in the third column of Tables II to IV):



**General requirements – Innocuousness and ergonomic requirements - ČSN EN 13277-1:2001:**

- generally – design, comfort, ergonomic properties, Art. 4.1
- innocuousness, Art. 4.2
- restraint, Art. 4.3
- sizing, Art. 4.4
- protected area, Art. 4.5

**Requirements for performance - ČSN EN 13277-2:2001:**

- restraint systems, Art. 4.3
- zone of protection, Art. 4.4
- impact performance - shock absorption, Art. 4.5

**Marking, information supplied by the manufacturer:**

- marking, classification - ČSN EN 13277-1:2001, Art. 6
- information to be supplied - ČSN EN 13277-1:2001, Art. 7

### 3.3 Test methods

The submitted samples of the product assessed, sport protectors, were tested employing test methods specified in Table VI:

**Table VI: Test methods and standards used for testing**

Test method	Used standard
Protective equipment for martial arts - Part 1: General requirements and test methods <ul style="list-style-type: none"><li>- Sweat colourfastness</li><li>- Textile materials</li><li>- Non textile materials</li></ul>	ČSN EN 13277-1:2001 (EN 13277-1:2000) <ul style="list-style-type: none"><li>- Art. 5.3</li><li>- Art. 5.3.1</li><li>- Art. 5.3.2</li></ul>
Protective equipment for martial arts - Part 2: Additional requirements and test methods for hand and foot protectors <ul style="list-style-type: none"><li>- Restraint</li><li>- Zone of protection</li><li>- Impact performance</li></ul>	ČSN EN 13277-2:2001 (EN 13277-2:2000) <ul style="list-style-type: none"><li>- Art. 5.3</li><li>- Art. 5.4</li><li>- Art. 5.5</li></ul>
Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration	ČSN EN ISO 105-E04 (EN ISO 105-E04)
Visual evaluation of marking, classification, information provided by the manufacturer	ČSN EN 13277-1, Art. 6, 7

### 3.4 Place and scope of sampling

Samples of the assessed product were delivered by the customer on 2021-08-11 in compliance with instructions of the designated worker of the Notified Body NB 1023 at the quantity of 4 pairs. With regard to the fact that this is the EU type examination by a notified body, the Customer asking for assessing the conformity is responsible for selecting a sample (or prototype). The test examination does not include inspection activity focused on the conformity of properties of all products introduced to the market with the assessed (proto)type.



### 3.5 Place of performing the tests and assessment

Tests were performed in the following accredited testing laboratory: Institut pro testování a certifikaci, a.s., (Institute for Testing and Certification, a.s.), Zlín, AZL No. 1004. The documentation was examined and visual inspection and product type assessment were performed in Institute for testing and certification, a.s.

### 3.6 Results of tests and assessment

Results of the personal protective equipment evaluation are summarised in Tables VII - X. Test methods stated in respective part of Table VI were used.

**Table VII: Results of assessment of product Shin Instep Protector, type SP3**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
General	4.1	protectors shall be so designed that in the foreseeable conditions of use for which they are intended the user can perform the typical movements without being hindered	user can perform the typical movements without being hindered	D3	pass
Innocuousness	4.2	materials, fabrics, seams and edges shall not harm those coming into contact with them	materials, fabrics, seams and edges don't harm those coming into contact with them	D1, D3, D2, D8	pass
Innocuousness Colour fastness to perspiration: acid sweat - black textile lining - black elastic wide - black elastic narrow - black hem - blue hem - red hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5 5/5/5 5/5/5	D4	pass
Innocuousness Colour fastness to perspiration: alkaline sweat - black textile lining - black elastic wide - black elastic narrow. - black hem - blue hem - red hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5 5/5/5 5/5/5	D4	pass
Innocuousness - sweat resistance of other materials	4.2	they shall be sweat resistant		D4	pass

**Table VII: Results of assessment of product Shin Instep Protector, type SP3**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
- black leather fabric - blue leather fabric - red leather fabric			resistant resistant resistant		
Restraint - construction	4.3	reliable restraint of protectors on shin and instep	reliable restraint of protectors on shin and instep established	D3	pass
Restraint - edges and ragged components	4.3	they shall be padded	they are padded	D3	pass
Sizing	4.4	they shall be delivered in several sizes	delivered sizes: S, M, L, XL	D1, D3, D4	pass
Sizes	4.4	the size shall be marked	the sizes are marked	D3	pass
Restraint - utility	ČSN EN 13277-2 Art. 4.3	fixation of protector shall be possible without extraneous help (or with help of other person)	without extraneous help	D3	pass
Restraint of shin part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7 direction 8	4.3	displacement less than 15 % of size proportion of protected area	0 % 0 % 0 % 0 % 0 % 0 % 0 % 0 %	D4	pass
Restraint of instep part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7	4.3	displacement less than 15 % of size proportion of protected area	4.8 % 0 % 5.5 % 0 % 0 % 0 %	D4	pass
Restraint system of shin parts - performance after test	4.3	without damage	without damage	D4	pass
Restraint system of instep parts - performance after test	4.3	without damage	without damage	D4	pass

**Table VII: Results of assessment of product Shin Instep Protector, type SP3**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Protected area of shin part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.2	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D4	pass
Protected area of instep part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.1	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D4	pass
Impact performance <sup>4)</sup> (shock absorption) of shin part – maximum force  size S place No. 1 place No. 2 place No. 3 ----- size M place No. 1 place No. 2 place No. 3 ----- size L place No. 1 place No. 2 place No. 3 ----- size XL place No. 1 place No. 2 place No. 3	ČSN EN 13277-2 Art. 4.5	max. 2 kN	0.08 kN 0.09 kN 0.09 kN ----- 0.08 kN 0.12 kN 0.12 kN ----- 0.12 kN 0.13 kN 0.13 kN ----- 0.12 kN 0.12 kN 0.10 kN	D4	pass

**Table VII: Results of assessment of product Shin Instep Protector, type SP3**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Impact performance <sup>4)</sup> (shock absorption) of instep part – maximum force  size S place No. 1 place No. 2 ----- size M place No. 1 place No. 2 ----- size L place No. 1 place No. 2 ----- size XL place No. 1 place No. 2	ČSN EN 13277-2 Art. 4.5	max. 2 kN	0.23 kN 0.25 kN ----- 0.21 kN 0.26 kN ----- 0.19 kN 0.23 kN ----- 0.22 kN 0.21 kN	D4	pass
Impact performance of shin part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D4	pass
Impact performance of instep part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D4	pass
Marking	6.	protectors shall be durably and clearly marked with the required information	durably and clearly marked with the required information	D3	pass
Instructions for use	7.	protectors shall be supplied with instructions for use according to EN 13277-1	supplied with instructions for use	D3	pass

**Table VIII: Results of assessment of product Shin Instep Protector, type SP5**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
General	4.1	protectors shall be so designed that in the foreseeable conditions of use for which they are intended the user can perform the typical movements without being hindered	user can perform the typical movements without being hindered	D3	pass
Innocuousness	4.2	materials, fabrics, seams and edges shall not harm those coming into contact with them	materials, fabrics, seams and edges don't harm those coming into contact with them	D1, D3, D2, D8	pass
Innocuousness Colour fastness to perspiration: acid sweat - black textile lining - black elastic wide - black elastic narrow - black hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5	D5	pass
Innocuousness Colour fastness to perspiration: alkaline sweat - black textile lining - black elastic wide - black elastic narrow - black hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5	D5	pass
Innocuousness - sweat resistance of other materials - black leather fabric - blue leather fabric - red leather fabric	4.2	they shall be sweat resistant	resistant resistant resistant	D5	pass
Restraint - construction	4.3	reliable restraint of protectors on shin and instep	reliable restraint of protectors on shin and instep established	D3	pass
Restraint - edges and ragged components	4.3	they shall be padded	they are padded	D3	pass
Sizing	4.4	they shall be delivered in several sizes	delivered sizes: S, M, L, XL	D1, D3, D5	pass
Sizes	4.4	the size shall be marked	the sizes are marked	D3	pass

**Table VIII: Results of assessment of product Shin Instep Protector, type SP5**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Restraint - utility	ČSN EN 13277-2 Art. 4.3	fixation of protector shall be possible without extraneous help (or with help of other person)	without extraneous help	D3	pass
Restraint of shin part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7 direction 8	4.3	displacement less than 15 % of size proportion of protected area	0 % 0 % 0 % 0 % 0 % 0 % 0 %	D5	pass
Restraint of instep part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7	4.3	displacement less than 15 % of size proportion of protected area	2.3 % 0 % 3.0 % 0 % 0 % 0 %	D5	pass
Restraint system of shin parts - performance after test	4.3	without damage	without damage	D5	pass
Restraint system of instep parts - performance after test	4.3	without damage	without damage	D5	pass
Protected area of shin part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.2	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D5	pass
Protected area of instep part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.1	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D5	pass



**Table VIII: Results of assessment of product Shin Instep Protector, type SP5**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Impact performance <sup>4)</sup> (shock absorption) of shin part – maximum force  size S place No. 1 place No. 2 place No. 3	ČSN EN 13277-2 Art. 4.5	max. 2 kN	0.11 kN 0.10 kN 0.10 kN	D5	pass
size M place No. 1 place No. 2 place No. 3			0.13 kN 0.14 kN 0.15 kN		
size L place No. 1 place No. 2 place No. 3			0.12 kN 0.13 kN 0.14 kN		
size XL place No. 1 place No. 2 place No. 3			0.11 kN 0.11 kN 0.11 kN		
Impact performance <sup>4)</sup> (shock absorption) of instep part – maximum force  size S place No. 1 place No. 2	ČSN EN 13277-2 Art. 4.5	max. 2 kN	0.41 kN 0.38 kN	D5	pass
size M place No. 1 place No. 2			0.34 kN 0.32 kN		
size L place No. 1 place No. 2			0.25 kN 0.31 kN		
size XL place No. 1 place No. 2			0.26 kN 0.27 kN		

**Table VIII: Results of assessment of product Shin Instep Protector, type SP5**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Impact performance of shin part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D5	pass
Impact performance of Instep part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D5	pass
Marking	6.	protectors shall be durably and clearly marked with the required information	durably and clearly marked with the required information	D3	pass
Instructions for use	7.	protectors shall be supplied with instructions for use according to EN 13277-1	supplied with instructions for use	D3	pass

**Table IX: Results of assessment of product Shin Instep Protector, type SP6**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
General	4.1	protectors shall be so designed that in the foreseeable conditions of use for which they are intended the user can perform the typical movements without being hindered	user can perform the typical movements without being hindered	D3	pass
Innocuousness	4.2	materials, fabrics, seams and edges shall not harm those coming into contact with them	materials, fabrics, seams and edges don't harm those coming into contact with them	D1, D3, D2, D8	pass

**Table IX: Results of assessment of product Shin Instep Protector, type SP6**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Innocuousness Colour fastness to perspiration: acid sweat - black textile lining - black elastic wide - black elastic narrow - black hem - blue textile for velcro	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup>  5/5/5 5/5/5 5/5/5 5/5/5 5/5/5	D7	pass
Innocuousness Colour fastness to perspiration: alkaline sweat - black textile lining - black elastic wide - black elastic narrow - black hem - blue textile for velcro	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup>  5/5/5 5/5/5 5/5/5 5/5/5 5/5/5	D7	pass
Innocuousness - sweat resistance of other materials - black leather fabric - blue leather fabric - red leather fabric	4.2	they shall be sweat resistant	resistant resistant resistant	D7	pass
Restraint - construction	4.3	reliable restraint of protectors on shin and instep	reliable restraint of protectors on shin and instep established	D3	pass
Restraint - edges and ragged components	4.3	they shall be padded	they are padded	D3	pass
Sizing	4.4	they shall be delivered in several sizes	delivered sizes: S, M, L, XL	D1, D3, D7	pass
Sizes	4.4	the size shall be marked	the sizes are marked	D3	pass
Restraint - utility	ČSN EN 13277-2 Art. 4.3	fixation of protector shall be possible without extraneous help (or with help of other person)	without extraneous help	D3	pass

**Table IX: Results of assessment of product Shin Instep Protector, type SP6**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Restraint of shin part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7 direction 8	4.3	displacement less than 15 % of size proportion of protected area	0 % 0 % 0 % 0 % 0 % 0 % 0 %	D7	pass
Restraint of instep part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7	4.3	displacement less than 15 % of size proportion of protected area	13.8 % 0 % 12.5 % 0 % 0 % 0 %	D7	pass
Restraint system of shin parts - performance after test	4.3	without damage	without damage	D7	pass
Restraint system of instep parts - performance after test	4.3	without damage	without damage	D7	pass
Protected area of shin part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.2	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D7	pass
Protected area of instep part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.1	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D7	pass

**Table IX: Results of assessment of product Shin Instep Protector, type SP6**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment	
Impact performance <sup>4)</sup> (shock absorption) of shin part – maximum force	CSN EN 13277-2 Art. 4.5	max. 2 kN		D7	pass	
size S place No. 1 place No. 2 place No. 3						0.10 kN 0.12 kN 0.09 kN
size M place No. 1 place No. 2 place No. 3						0.09 kN 0.11 kN 0.08 kN
size L place No. 1 place No. 2 place No. 3						0.10 kN 0.12 kN 0.10 kN
size XL place No. 1 place No. 2 place No. 3			0.08 kN 0.13 kN 0.09 kN			
Impact performance <sup>4)</sup> (shock absorption) of instep part – maximum force	CSN EN 13277-2 Art. 4.5	max. 2 kN		D7	pass	
size S place No. 1 place No. 2						0.58 kN 0.95 kN
size M place No. 1 place No. 2						0.64 kN 0.78 kN
size L place No. 1 place No. 2						0.63 kN 0.86 kN
size XL place No. 1 place No. 2			0.55 kN 0.88 kN			

**Table IX: Results of assessment of product Shin Instep Protector, type SP6**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Impact performance of shin part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D7	pass
Impact performance of instep part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D7	pass
Marking	6.	protectors shall be durably and clearly marked with the required information	durably and clearly marked with the required information	D3	pass
Instructions for use	7.	protectors shall be supplied with instructions for use according to EN 13277-1	supplied with instructions for use	D3	pass

**Table X: Results of assessment of product Shin Instep Protector, type SP7**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
General	4.1	protectors shall be so designed that in the foreseeable conditions of use for which they are intended the user can perform the typical movements without being hindered	user can perform the typical movements without being hindered	D3	pass
Innocuousness	4.2	materials, fabrics, seams and edges shall not harm those coming into contact with them	materials, fabrics, seams and edges don't harm those coming into contact with them	D1, D3, D2, D8	pass





**Table X: Results of assessment of product Shin Instep Protector, type SP7**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Innocuousness Colour fastness to perspiration: acid sweat - black textile lining - black elastic wide - black elastic narrow - black hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5	D6	pass
Innocuousness Colour fastness to perspiration: alkaline sweat - black textile lining - black elastic wide - black elastic narrow - black hem	4.2	degree of grey scale min. 3-4	degree of grey scale <sup>3)</sup> 5/5/5 5/5/5 5/5/5 5/5/5	D6	pass
Innocuousness - sweat resistance of other materials - black leather fabric - blue leather fabric - red leather fabric	4.2	they shall be sweat resistant	resistant resistant resistant	D6	pass
Restraint - construction	4.3	reliable restraint of protectors on shin and instep	reliable restraint of protectors on shin and instep established	D3	pass
Restraint - edges and ragged components	4.3	they shall be padded	they are padded	D3	pass
Sizing	4.4	they shall be delivered in several sizes	delivered sizes: S, M, L, XL	D1, D3, D6	pass
Sizes	4.4	the size shall be marked	the sizes are marked	D3	pass
Restraint - utility	ČSN EN 13277-2 Art. 4.3	fixation of protector shall be possible without extraneous help (or with help of other person)	without extraneous help	D3	pass



**Table X: Results of assessment of product Shin Instep Protector, type SP7**

Properties essential for assessment	Art. of standard 1)	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Restraint of shin part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7 direction 8	4.3	displacement less than 15 % of size proportion of protected area	0 % 0 % 0 % 0 % 0 % 0 % 0 %	D6	pass
Restraint of instep part - displacement by the force action <sup>4)</sup> direction 1 direction 2 direction 3 direction 4 direction 5 direction 6 direction 7	4.3	displacement less than 15 % of size proportion of protected area	1.9 % 0 % 5.7 % 0 % 0 % 0 %	D6	pass
Restraint system of shin parts - performance after test	4.3	without damage	without damage	D6	pass
Restraint system of instep parts - performance after test	4.3	without damage	without damage	D6	pass
Protected area of shin part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.2	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D6	pass
Protected area of instep part – shape and dimensions: - size S - size M - size L - size XL	ČSN EN 13277-2 Art. 4.4.1	Protectors shall correspond to shape and dimensions requirements	Protected area is larger larger larger larger than template area	D6	pass

**Table X: Results of assessment of product Shin Instep Protector, type SP7**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment	
Impact performance <sup>4)</sup> (shock absorption) of shin part – maximum force	CSN EN 13277-2 Art. 4.5	max. 2 kN		D6	pass	
size S place No. 1 place No. 2 place No. 3						0.09 kN 0.10 kN 0.11 kN
size M place No. 1 place No. 2 place No. 3						0.08 kN 0.10 kN 0.10 kN
size L place No. 1 place No. 2 place No. 3						0.09 kN 0.12 kN 0.11 kN
size XL place No. 1 place No. 2 place No. 3			0.11 kN 0.13 kN 0.10 kN			
Impact performance <sup>4)</sup> (shock absorption) of instep part – maximum force	CSN EN 13277-2 Art. 4.5	max. 2 kN		D6	pass	
size S place No. 1 place No. 2						0.23 kN 0.22 kN
size M place No. 1 place No. 2						0.22 kN 0.21 kN
size L place No. 1 place No. 2						0.21 kN 0.23 kN
size XL place No. 1 place No. 2			0.23 kN 0.24 kN			

**Table X: Results of assessment of product Shin Instep Protector, type SP7**

Properties essential for assessment	Art. of standard <sup>1)</sup>	Value required	Results obtained	Number of document <sup>2)</sup>	Assessment
Impact performance of shin part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D6	pass
Impact performance of Instep part – performance after test - size S - size M - size L - size XL	4.6	without damage	without damage without damage without damage without damage	D6	pass
Marking	6.	protectors shall be durably and clearly marked with the required information	durably and clearly marked with the required information	D3	pass
Instructions for use	7.	protectors shall be supplied with Instructions for use according to EN 13277-1	supplied with instructions for use	D3	pass

**Notes:**

- 1) *Appropriate articles of ČSN EN 13277-1 unless stated otherwise*
- 2) *The documents placed in this column are the basis for assessment. Their identification see in Table XI*
- 3) *Value of colour change / value of staining to the first comparative fabric / value of staining to the second comparative fabric*
- 4) *Deciding value is marked as boldface*

**3.7 Assessment of product conformity with technical specifications and basic requirements**

The assessed product – Shin Instep Protectors, types: SP3, SP5, SP6, SP7 specified in Item 1 hereof – complies with the requirements set by the following technical standards with the requirements set by the following technical standards with regard to its design and submitted documentation:

ČSN EN 13277-1:2001 (EN 13277-1:2000)  
 ČSN EN 13277-2:2001 (EN 13277-2:2000)

Results of the evaluation of the personal protective equipment stated in Table VII - X hereof prove the conformity of all indicators specifying general basic requirements of Regulation (EU) 2016/425, additional basic requirements common for more types of PPE and additional basic requirements for special risks applicable to the evaluated type of product.



#### 4. Conclusion

Notified Body NB 1023 performed EU Type-Examination of the personal protective equipment

##### **ShIn Instep Protectors**

**Types: SP3, SP5, SP6, SP7**

Technical specifications used by the manufacturer are in compliance with basic requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

The sample of the personal protective equipment was produced in compliance with the technical documentation of the manufacturer and can be fully safely used for its intended purpose.

The sample of the personal protective equipment meets all the provisions of the Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

The Notified Body No. 1023 has decided to issue the EU Type Certificate.

#### 5. List of documents used for the preparation of the Evaluation Report

List of documents used by Notified Body NB 1023 by EC type examination of product, is presented in Table X. Numbers of documents in second column correspond with numbers of documents published in Tables VII - IX with assessment of product properties.

**Table X: List of documents**

<b>Name of document</b>	<b>Marking</b>
The application of company Fairtex Equipment Company limited, Thailand dated 2021-08-11	-
Technical documentation of company Fairtex Equipment Company limited, Thailand (description of the product, technical specification, instructions for use and maintenance, picture of the product, description of the means used by the manufacturer during the production of the PPE to ensure the conformity of the PPE) submitted on 2021-08-11	D1
Check list / a list of basic health and safety requirements issued by Fairtex Equipment Company limited, Thailand submitted on 2021-08-05	D2
Document on receipt of samples (Sample Registration Book)	-
Assessment Record No. 723302179, Notified Body NB 1023, Institut pro testování a certifikaci, a.s., Zlín	D3
Accredited Laboratory Test Report ref. No. 412603176-01, issued in testing accredited laboratory AZL1004, Institut pro testování a certifikaci, a.s., Zlín	D4
Accredited Laboratory Test Report ref. No. 412603176-02, issued in testing accredited laboratory AZL1004, Institut pro testování a certifikaci, a.s., Zlín	D5
Accredited Laboratory Test Report ref. No. 412603176-04, issued in testing accredited laboratory AZL1004, Institut pro testování a certifikaci, a.s., Zlín	D6
Accredited Laboratory Test Report ref. No. 412603176-06, issued in testing accredited laboratory AZL1004, Institut pro testování a certifikaci, a.s., Zlín	D7
Declaration about innocuousness for human health of materials used on the product, issued in company Fairtex Equipment Company limited, Thailand dated 2021-08-05	D8

**Appendix to Evaluation Report Ref. No. 723302179/2021**

**Drawing of the Product**



**SP3**



**SP5**



**SP6**



**SP7**