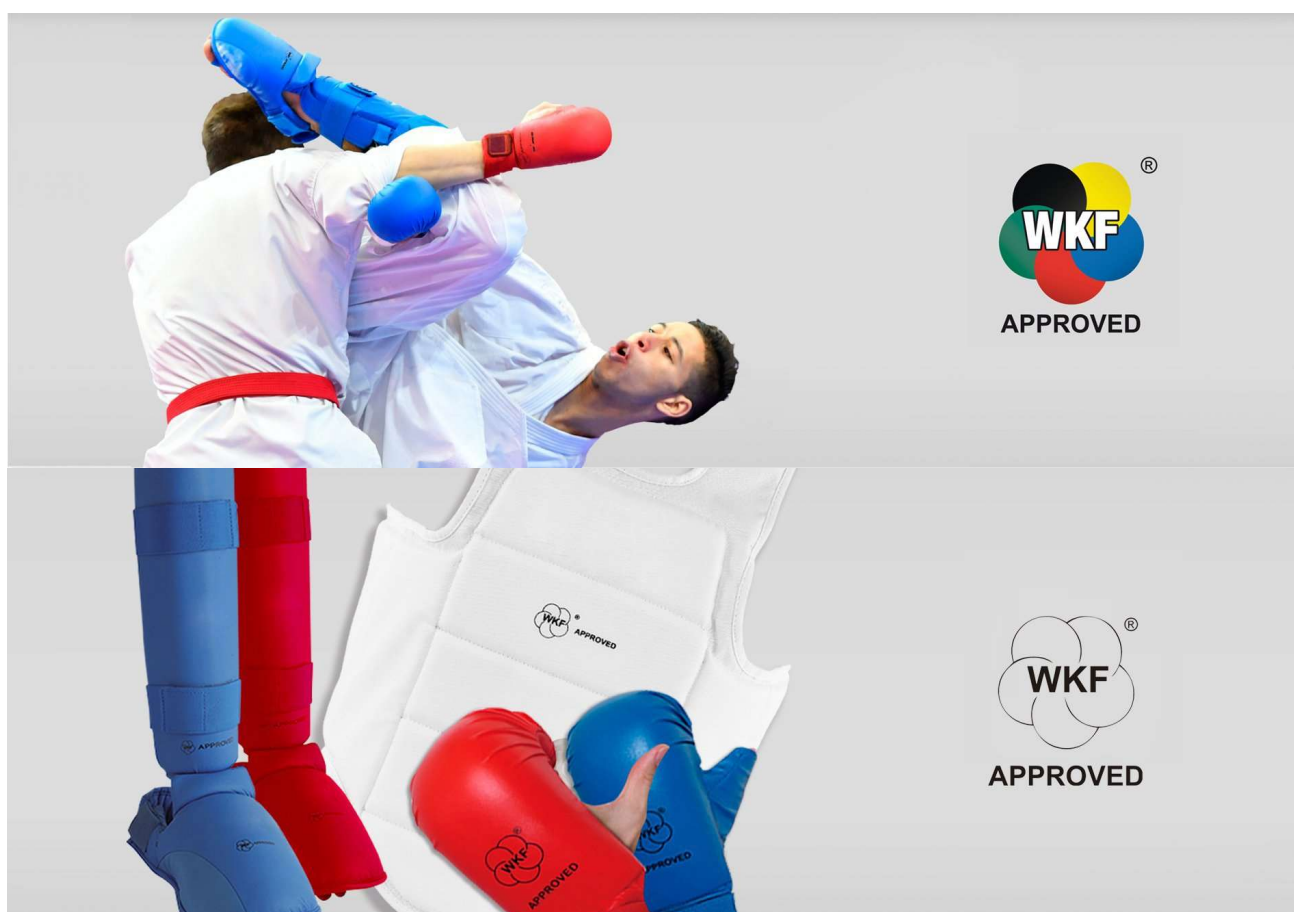




**WORLD KARATE FEDERATION**

**WKF SPORT ITEMS HOMOLOGATION PROCESS 2025 - 2028**





## WKF SPORT ITEMS HOMOLOGATION PROCESS 2025 - 2028

As the present term of WKF approved sport items expires next 31st December 2024, WKF starts now a new process to apply for the WKF official approval of the sport items listed below, applicable for the 4 years term between 1st January 2025 and 31st December 2028:

### SPORT PROTECTIONS

#### 1. SPORT PROTECTIONS OF COMPULSORY USE IN COMPETITION

**a. KARATE MITTS:** The specifications enclosed (annex 1) will be taken as reference. Colours will be red, pattern RED 032 C and blue pattern PROCESS BLUE C, including strips. This protection can come in two models: with thumb protection and without thumb protection. The fastener fitting to the arm must have rounded edges.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come with a certificate from an accredited laboratory which specifies the density and impact resistance of the foam.

**b. SHIN-PAD & FOOT PROTECTOR:** The specifications enclosed (annex 2 & annex 3) will be taken as reference. Colours will be red, pattern RED 032 C and blue pattern PROCESS BLUE C, including strips.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come with a certificate from an accredited laboratory which specifies the density and impact resistance of the foam.



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**c. BODY PROTECTOR:** Body protector of inner use (under the karategi) which protects the front and lateral thoracic area as well as the abdomen according to the specifications from EUROPEAN COMMITTEE STANDARD (CEN) EN 13277-3:2013.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come in one size with a certificate from an accredited laboratory.

**d. FEMALE CHEST PROTECTOR:** Formed by two parts, the inner one will be made of polyurethane (PU) resistant material, white or transparent, with rounded edges in order to avoid harming the competitor in case of an impact, according to the specifications from EUROPEAN COMMITTEE STANDARD (CEN) EN 13277-6. The outer part will consist of a washable white lining.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come in the one size and with a certificate from an accredited laboratory.

You can also submit to the WKF approval one specific BODY PROTECTOR FOR WOMAN. This protection must meet the requirements established in the above points 3 and 4.

**e. CHILDREN CHEST PROTECTOR:** It will be WHITE for outer use, outside of the karategi, protecting both chest and body sides according to the specifications from EUROPEAN COMMITTEE STANDARD (CEN) EN 13277-3 and with a certificate from an accredited laboratory.

The outer part must be of polyurethane (PU) material (Please refer to the WKF official web site).

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come in the one size and with a certificate from an accredited laboratory.



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**f. HELMET (OF COMPULSORY USE IN UNDER 14 CATEGORIES):** The helmet must be composed of a head protector and a face protector both in compliance with the following EUROPEAN COMMITTEE STANDARD:

- EN13277-1:2000 (Protective equipment for martial arts. General requirements and test methods)
- EN13277-4:2001+A1:2007 (Protective equipment for martial arts. Additional requirements and test methods for head protectors).

The fastening must be WHITE with rounded edges.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come in one size and with a certificate from an accredited laboratory.

**g. MALE GROIN GUARD:** It must be manufactured according to the specifications from EUROPEAN COMMITTEE STANDARD (CEN) EN 13277-5. WHITE colour.

If the sport item is manufactured in more than one country, it is mandatory to send a sample produced in each country.

The samples sent must come in one size and with a certificate from an accredited laboratory.

### 2. **SPORT PROTECTIONS OF RECOMMENDED USE IN COMPETITION**

**a. FEMALE GROIN GUARD:** It must adequately protect the female genitals and at the same time allow optimal mobility. WHITE colour. Please refer to the WKF official web site.

### 3. **OUT OF COMPETITION RECOMMENDED PROTECTIONS**

**a. FOREARM PROTECTOR:** It must be WHITE and the outer part of polyurethane (PU) material. Please refer to the WKF official web site.



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## APPROVAL PROCESS

- From March 1<sup>st</sup>, 2024: Reception of samples and documentation.

- End March 2024: Presentation, evaluation, and approval by the WKF of received samples.

- April 2024: Communication to all companies of the results of the evaluation of the WKF and deadline for new samples with possible modifications suggested in some protections.

Communication to all companies of the WKF final decision.

- May 2024: Signature of agreements.

- June 2024: A communication will be sent to all WKF National Federations indicating the WKF Approved companies and their distributors.

All the documentation and materials must be sent from next March 1st, 2024, to the following address:

**World Karate Federation**

**Calle Princesa 25, 3º 1**

**28008 (Madrid)**

**Spain**



# WORLD KARATE FEDERATION

## WKF APPROVED BRANDS

The WKF official approval of sport items will mean for the supplier/manufacturing company:

- Communication by WKF to all National Federations of the sports items officially approved.
- The trademark and its sports protections officially approved will be included in all bulletins issued for the WKF official competitions.
- Publishing in WKF website of:
  - o Logo of officially approved trademarks.
  - o List of dealers classified by countries.

WKF guarantees that only the officially approved items of compulsory use will be used in WKF official competitions.

Sports protections officially approved by WKF cannot be rejected by National Federations in their official competitions.

All approved sports items will show the © (copyright) WKF logo in a clearly visible place, as it is specified in the relative agreement.



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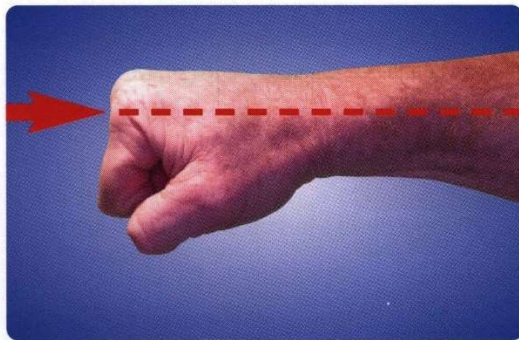
# **ANNEXES**

## ANNEX I – KARATE MITTS

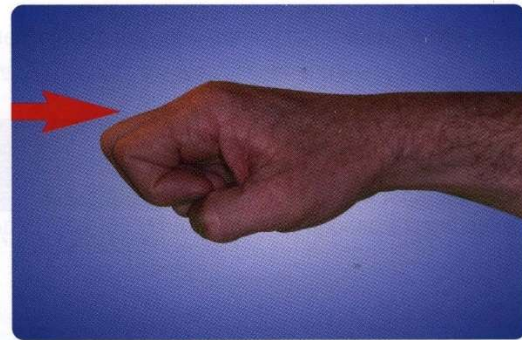
### 1. Ergonomics

#### *Contact area adapted to sports competition*

In traditional karate, the basic form for the direct punch (tsuki) consists of aligning the longitudinal axis of the first and second metacarpus with the longitudinal axis of the forearm (see figure 1). This form is justified, as the first two metacarpal-phalanx-joints, called kentos in Japanese, are used for impact. This position of the wrist allows good transmission of force during impact.

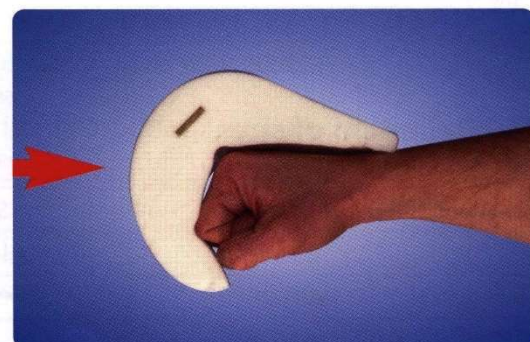


*Fig. 1: tsuki form in traditional karate.*



*Fig. 2: tsuki form in karate sports.*

In competitive sparring karate, to favor release and speed, the wrist is less closed than in the traditional form (see figure 2). The form of the karate mitt has therefore been adapted to best suit this hand form and present a maximum thickness on the main impact surface (see figures 3 and 4).

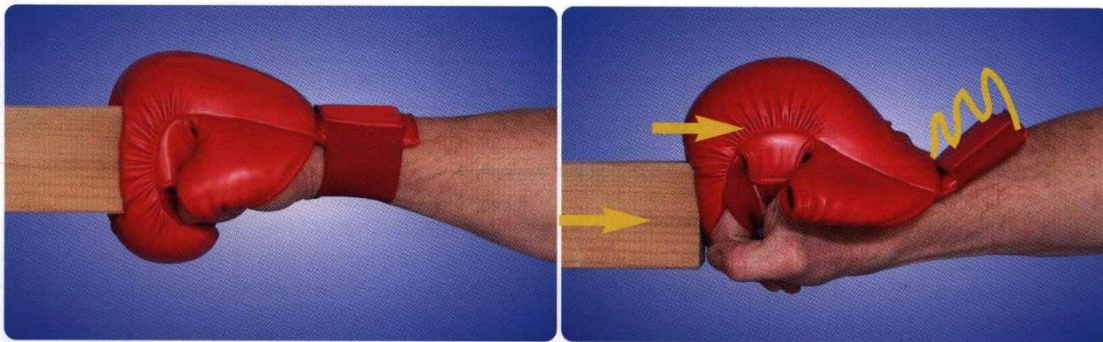


*Fig. 3: karate mitt form adapted to karate sports. Fig. 4: sectional view of shock absorption layer.*



## *Maintenance of the contact area during a frontal blow*

The protective cuff for the wrist and the thumb protection must be sufficiently solid to prevent the mitt from slipping out of position during a frontal blow. Figure 5 shows an impact with the cuff and the thumb protection correctly used. Figure 6, performed with the cuff not closed and without the thumb protection, shows the effect of a blow if these elements did not succeed in their role of holding the karate mitt in place: the bunching means that the shock absorption layer does not correctly cover the area of the blow.

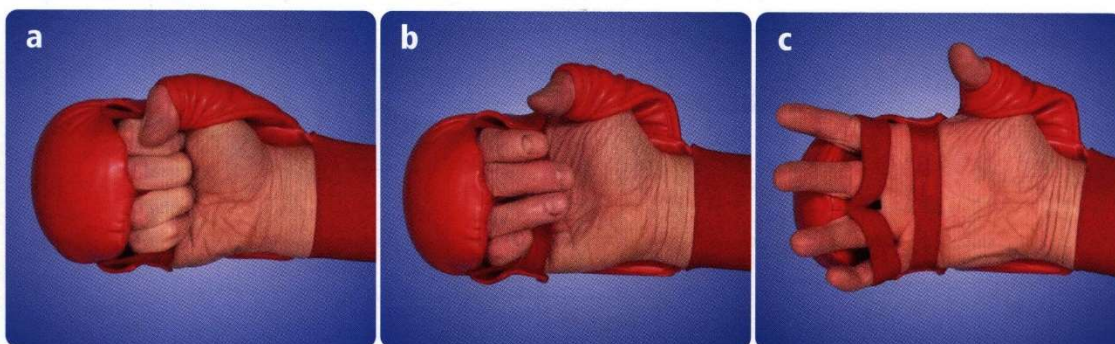


*Fig. 5: impact with a good security.*

*Fig.6: impact with high injury risk in competitive*

## *Open inner side*

To allow the use of open hand parries specific to Karate, the karate mitt is open on the inner side. The system for holding the fingers and the suppleness of the foam must permit comfort in the different degrees of opening or closing the hand (see figure 7a, 7b and 7c). The thumb extremity is not fixed at mitt to allow the hand opening.



*Fig. 7: inside of mitt compatible with the closed hand (a), partially closed hand (b) or open hand (c) position.*

## 2. Size

### Shock absorption layer (Foam)

Dimensions (in millimetres) and angles (in degrees)

	a	b	c	c1	c2	c3	c4	c5	d	d1	d2	d3	d4	e	A°	B°
<b>XS</b>	91	86	125	46	48	31	34	12	154	74	80	99	55	55	100°	120°
<b>S</b>	95	88	130	47	50	33	35	12	157	76	81	102	55	55	100°	120°
<b>M</b>	99	90	135	48	52	35	36	12	160	78	82	105	55	55	100°	120°
<b>L</b>	103	92	140	49	54	37	37	12	163	80	83	108	55	55	100°	120°
<b>XL</b>	107	94	145	50	56	39	38	12	166	82	84	111	55	55	100°	120°

(\* ) Allowable range for dimensions: 3 millimeters more or less.

Details for thickness dimensions: The dimension e is defined as the thickness of the foam at the main area of impact. It must correspond to the maximum thickness of the shock absorption layer. The dimensions c1 and e which define the thickness of the layer of foam are the same for all sizes in order that the shock absorption capacity be identical in XS, S, M, L and XL.

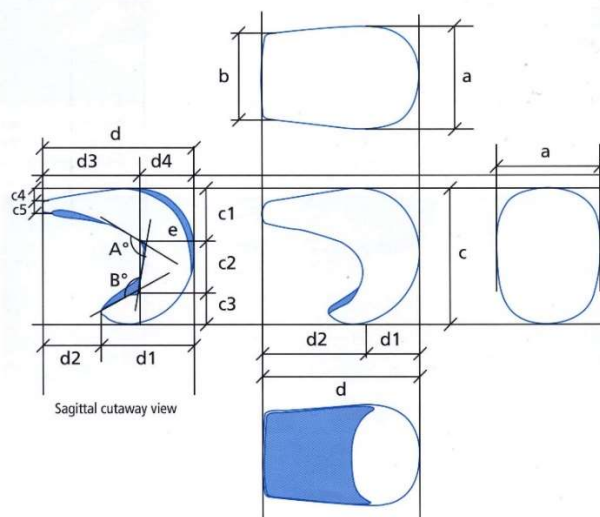


Fig. 8: karate mitt dimensions (foam).

### Polyurethane (foam)

**Density:** (UNE-EN ISO 845:1996) between 94 – 96 kg/m<sup>3</sup>

**Compression load:** (UNE-EN ISO 3386-1:1998) between 166 – 168 Newton

**Cost due to compression:** (UNE-EN ISO 3386-1:1998) between 59 – 61 Kilopascals

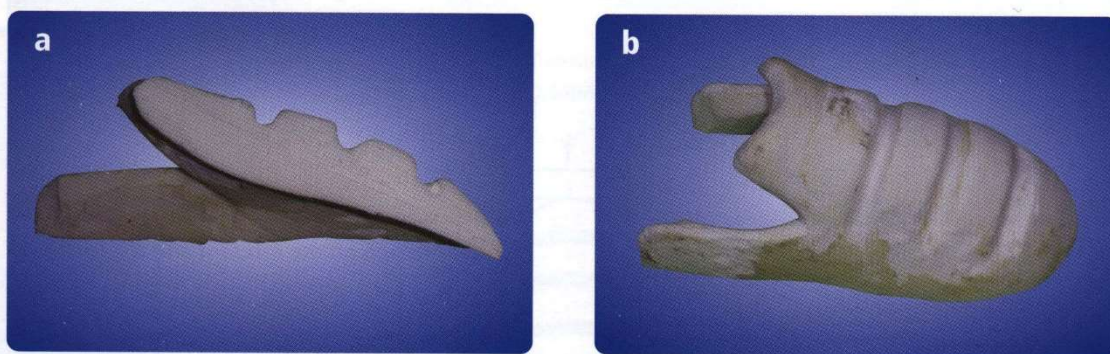
## ANNEX II – FOOT PROTECTOR

### 1. Ergonomics

#### *Protection that does not encounter force and movement*

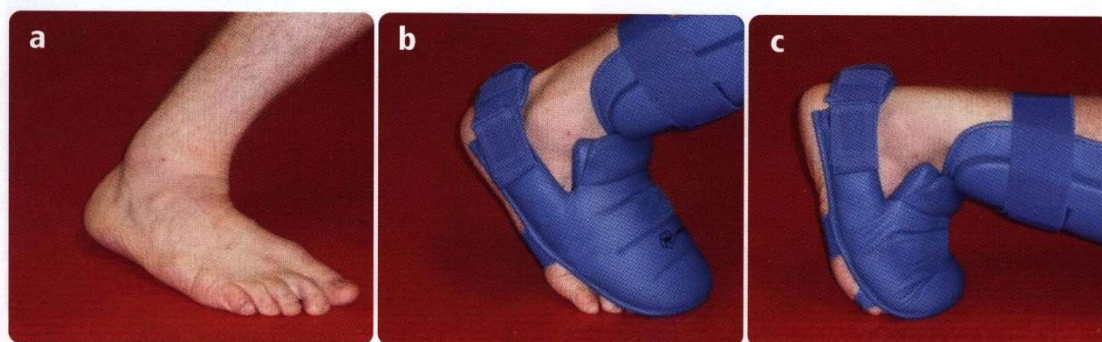
- Shape adapted to the top of the foot

Three grooves cut across the block cushioning the top of the foot dividing the block into 4 transversal rectangular chunks (see figure 9).



*Fig. 9: top foot cushioning block divided into transversal chunks: cross section (a) and view from above (b).*

This conformation allows the protection to be distorted without affecting the mid and forefoot during dorsiflexion, which occurs extremely often in sport karate (see figure 10).



*Fig. 10: "traditional" heel pressure on ground (a) and lifted heel pressure (b and c): the top of the protection bends without getting in the way of the foot during dorsiflexion, whether slight (b) or significant (c).*

- **Shape adapted to the underside of the foot**

The underside of the foot protector is designed so that most of the sole of the foot touches the ground directly (see figure 11). The elastic band, which might come into contact with the ground, must be made out of a non-slip material. The undersurface of the toes is not covered; they are therefore in direct contact with the ground when pressure is applied.

- **Shape adapted to the front tip of the foot**

The length of the protection underside must be designed to protect toes, but must not be too long to prevent the front tip of the protection coming into excessive contact with the ground when pressing on the tip of the foot (see figure 12).



*Fig. 11: seen from below.*



*Fig.12: pressing on the forefoot and the toes.*

### **Wear resistance**

Sliding movements (Yori Ashi type) occur frequently in sport karate: this causes regular rubbing between the foot protection and the tatami mat, which can cause premature wear on protection. It has been observed that the most worn part is that surrounding the big toe, due to friction resulting from forward propulsion in particular (see figure 13). This area therefore needs to be reinforced with more resistant material (see figure 14).



*Fig. 13: rubbing on the ground during forward propulsion. Figure 14: close-up of the reinforced area.*

## 2. Size

### Shock absorption layer (Foam)

Dimensions (in millimetres) and angles (in degrees)

	a	a1	a2	b	c	d	e	f	g	h	h1	h2	A	B	C
<b>S</b>	203	164	39	35	20	44	15	119	79	80	46	34	15	25	10
<b>M</b>	223	180	43	45	22	46	15	123	83	85	49	36	15	25	10
<b>L</b>	233	188	45	47	24	48	15	127	87	90	52	38	15	35	10
<b>XL</b>	256	195	61	48	26	50	15	131	91	95	55	40	15	35	10

(\*) Allowable range for dimensions: 3 millimeters more or less.

Further information on thickness dimensions: Dimensions A, B, and C, which define the thickness of the foam block, are the same for all sizes so that the cushioning capacity is identical for S, M, L and XL. Shaded part: the thin layer of foam glued on the cushioning block enhances the finishing by preventing that the envelopment of the entire protection collapses at the grooves.

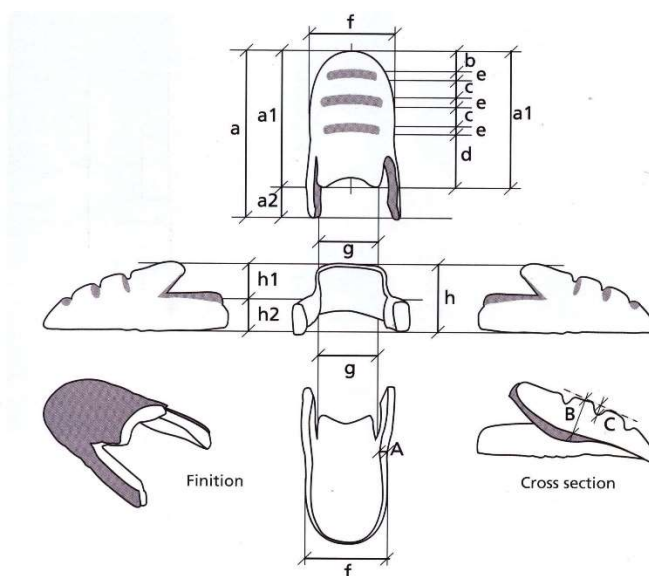


Fig. 15: foot protector dimensions.

### Polyurethane (foam)

**Density:** (UNE-EN ISO 845:1996) between 91 – 93 kg/m<sup>3</sup>

**Compression load:** (UNE-EN ISO 3386-1:1998) between 160 – 170 Newton

**Cost due to compression:** (UNE-EN ISO 3386-1:1998) between 32 – 34 Kilopascals

## ANNEX III – SHIN PAD

### 1. Ergonomics

#### *Shape adapted to the leg*

The cushioning block is trough shaped (see figure 17) to cover the front and two sides (inside and outside) of the shin. This trough shape must also be wider at the top and narrower at the base to suit the leg's tapered shape.

#### *Connection with the foot protector*

It must be possible to fit the shin protector and the foot protector together at the front of the ankle. This is achieved using a Velcro strap with a double tongue, which must be solid but not get in the way of ankle joint (see figure 18).



Fig. 16 cushioning block.



Figure 17: connecting the shin and foot protector.

## 2. Size

### Cushioning block (Foam)

Dimensions (in millimetres) and angles (in degrees)

	a	b	c	d	e	f	k	n	o	p
<b>S</b>	270	165	125	30	15	50	295	35	20	50
<b>M</b>	295	180	140	30	15	50	320	35	20	50
<b>L</b>	310	180	140	30	15	50	335	35	20	50
<b>XL</b>	320	190	150	30	15	50	340	35	20	50

About the size of the thickness: e and d dimensions, which define the thickness of the cushioning block, are the same for all sizes for an identical cushioning capacity for S, M, L and XL size. V = Sticking surface Velcro<sup>®</sup> surface.

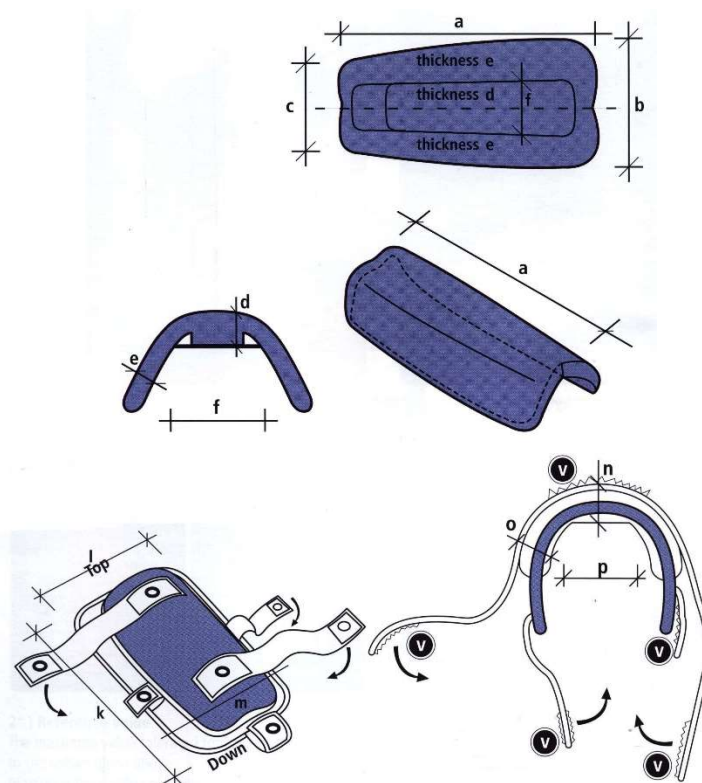


Fig. 18: shin pad dimensions.

### Polyurethane (foam)

**Density:** (UNE-EN ISO 845:1996) between 78 – 80 kg/m<sup>3</sup>

**Compression load:** (UNE-EN ISO 3386-1:1998) between 550 – 580 Newton

**Cost due to compression:** (UNE-EN ISO 3386-1:1998) between 220 – 240 Kilopascals



# WORLD KARATE FEDERATION

## ANNEX IV – APPLICATION FORM

The company ....., ..... hereafter, located in ....., wants to apply for the WKF official approval of the sport items listed below:

Type of Item	Model Name	Country where it is manufactured	Certificate Reference Number
Sport protection of compulsory use in competition	Karate Mitts		
	Shin-Pad & Foot Protector		
	Body Protector		
	Female Chest Protector		
	Children Chest Protector		
	Helmet		
	Male Groin Guard		
Sport recommended use in competition	Female Groin Guard		
Out of competition recommended protections	Forearm Protector		

The company has sent one sample of each sport item that wants to get the WKF Approved certificate with the corresponding certificate.

The company contact information is:

- Address:
- Mail:
- Telephone:
- Website:

**SIGNATURE**