

Approved  
FIAS Technical Commission Chairman

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**GENERAL SPECIFICATION SHEET  
FOR SAMBO MATS PRODUCTION**

**Moscow – 2019**

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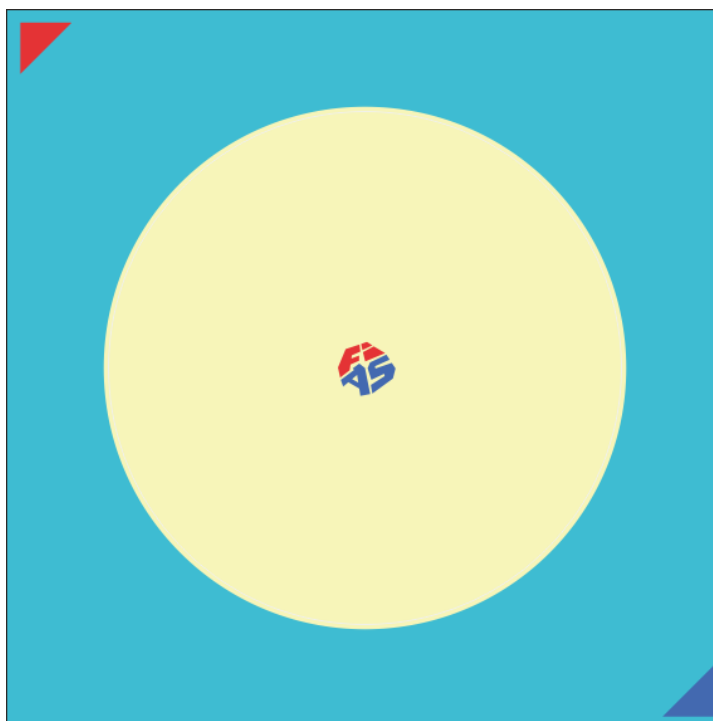
## I. GENERAL PROVISIONS

Official documents that were approved by the FIAS Executive Committee (Regulations and SAMBO Rules) contain key terms related to SAMBO mats.

This document defines the requirements for SAMBO mats that are used in official FIAS competitions (World Championships (adults, juniors, youths, cadets, students, masters), World Cups, multi-sport events (World University Games, European Games, etc.).

## II. REQUIREMENTS – SAMBO MATS MANUFACTURING

### 2.1 SAMBO mat artwork



### 2.2 Size and layout of the mats

- a) size of a SAMBO mat should be from 11x11;
- b) working area of the mat, where the athletes fight, should be a circle with a diameter 8 meters;
- c) center of the mat should be marked with FIAS logo with a diameter of 1 meter;
- d) two opposite corners of the mat should be marked with red and blue triangles.

Basic dimensions of the SAMBO mat are presented in **Annex 1**.

## 2.3 Structural features

SAMBO mat consists of two parts: the mat and the cover.

2.3.1 The mat element is an elastic base of the SAMBO mat, with the purpose of absorbing an impact force when falling, followed by shape retention of the total surface area of the cover. The main requirements:

- a) consists of 5-9-layer of PE foam (polyethylene) with various degree of stiffness clamped to each other layerwise like “sandwich”
- b) size of the mat is 200 x 100 x 5-6 cm;
- c) mat elements are made of synthetic and polymeric materials (materials selection, technical features of manufacturing, the design characteristics are determined by the manufacturer);
- d) health friendly substances should be used during mat elements manufacturing.

2.3.2 The cover is a synthetic square lid with special markings, which should be placed over mat elements for locking into each other. The main requirements:

- a) size of the cover should be from 11x11 meters;
- b) cover should be made of synthetic and polymeric materials (materials selection, technical features of manufacture, the design characteristics are determined by the manufacturer);
- c) health friendly substances should be used during carpet manufacturing;
- d) surface of the cover should be smooth (but not slippery) and homogeneous without any unevenness and solid seams;
- e) any image laid on the cover should be resistant to abrasion and deformation, and should not leave any stains;
- f) material of the cover should be water-resistant.

2.3.3 Each SAMBO mat (11x11m) consists of one cover and mat elements (60,5 pieces). Installation of SAMBO mat should be performed by fastening carpet to the mats with the help of hook and loop fasteners (VELCRO). This method is the best for ensuring constant tension of the cover, securely holding mat elements in a joint block.

Primary method of fastening cover is presented in **Annex 2**.

## 2.4 Technical specifications

### 2.4.1 Mat elements

- a) material – polyethylene (PPE);
- b) density – 140-160 kg/m<sup>3</sup>;
- c) impact strength - 160-180 J/m;

- d) geometry – rectangle of 200x100 cm (1 mat of 100x100 cm);
- e) thickness – 5-6 cm.

#### 2.4.2 Cover

- a) material – polyvinyl chloride (PVC) with non-glare (mat-finished) surface;
- b) density – 650 kg/m<sup>3</sup>;
- c) relative density – 700-800 gr/m<sup>2</sup>;
- d) rupture resistance – 300-370 N;
- e) geometry – square 11x11;
- f) thickness – 0.53 ± 0.02 mm;
- g) color permanence: high;
- h) wear resistance: high;
- i) temperature window - -60...+70 C;
- j) canvas texture: homogeneous, smooth, matte.

Primary colours of the cover are presented in **Annex 3**.

### III. REQUIREMENTS – LOGOS PLACEMENT ON SAMBO MATS

The manufacturer should decorate the cover with FIAS conformity mark and its own logo strictly in accordance with the present Specification.

#### 3.1 Requirements for FIAS conformity mark placement

Main requirements for placement of FIAS conformity mark on SAMBO covers are as follows:

- a) conformity mark should be placed at the corner of the cover;
- b) method of putting the conformity mark on should meet the following requirements:
  - i. security (environmentally friendly, no rough seams and sharp edges);
  - ii. aesthetics (durability, plasticity, the absence of contamination from contact with the logo dye).

Main requirements for placement of FIAS conformity mark on SAMBO mat elements are as follows:

- a) conformity mark should be placed at the left side of butt end of each mat element;
- b) method of putting the conformity mark on should meet the following requirements:
  - i. security (environmentally friendly, no rough seams and sharp edges);
  - ii. aesthetics (durability, plasticity, the absence of contamination from contact with the logo dye).

The principle of FIAS conformity mark placement is shown in **Annex 4**.

### 3.2 Requirements for manufacturer's logos placement

Main requirements for placement of manufacturer's logo are as follows:

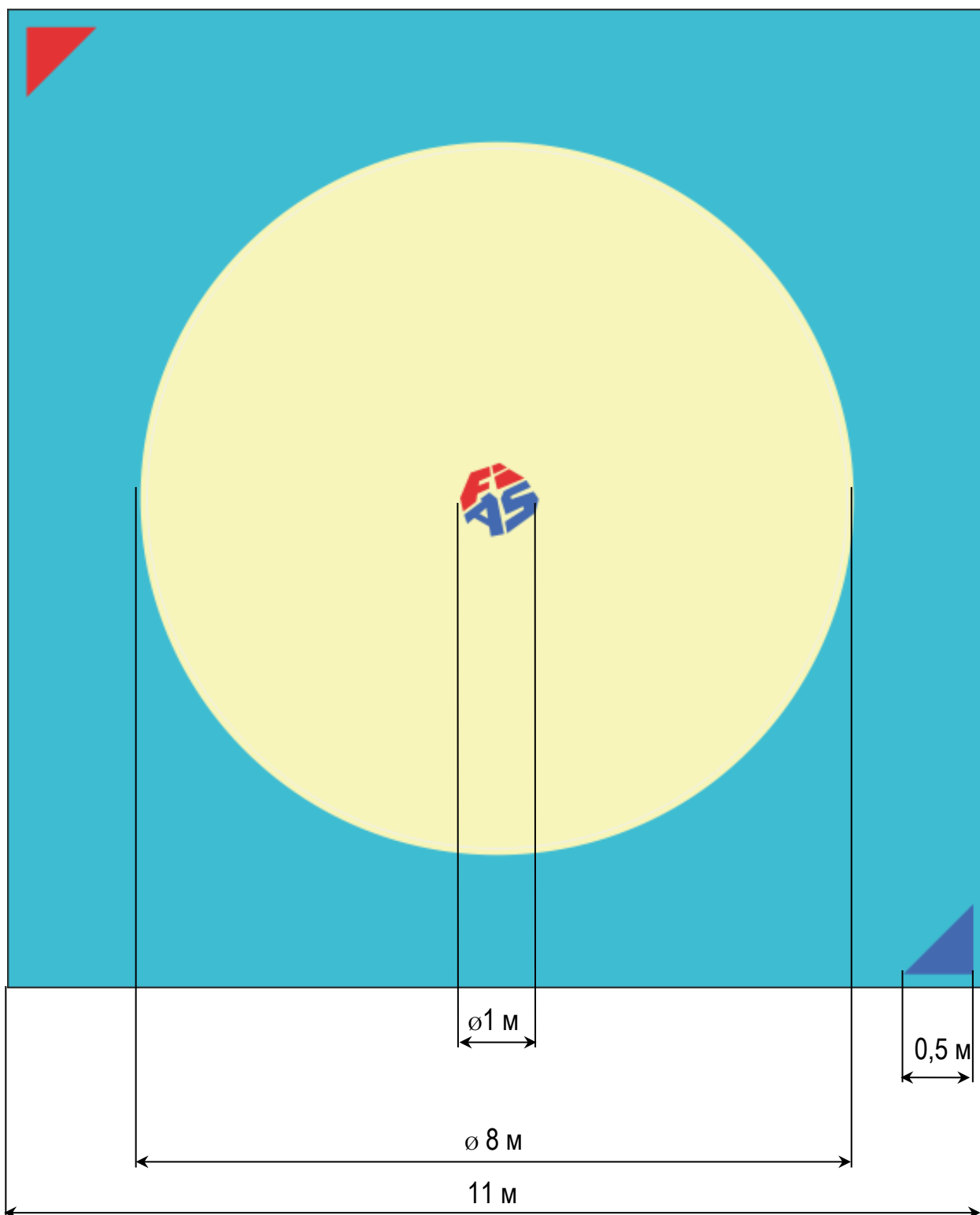
- a) manufacturer logo should be located strictly outside the working area of the mat;
- b) place and size of the logo should be defined by a separate agreement;
- c) method for applying a logo should meet the following requirements:
  - i. security (environmentally friendly, without rough seams and sharp edges);
  - ii. aesthetics (durability, plasticity, absence of contamination through the contact with a logo dye).

The principle of manufacturer's logo placement is shown in **Annex 5**.

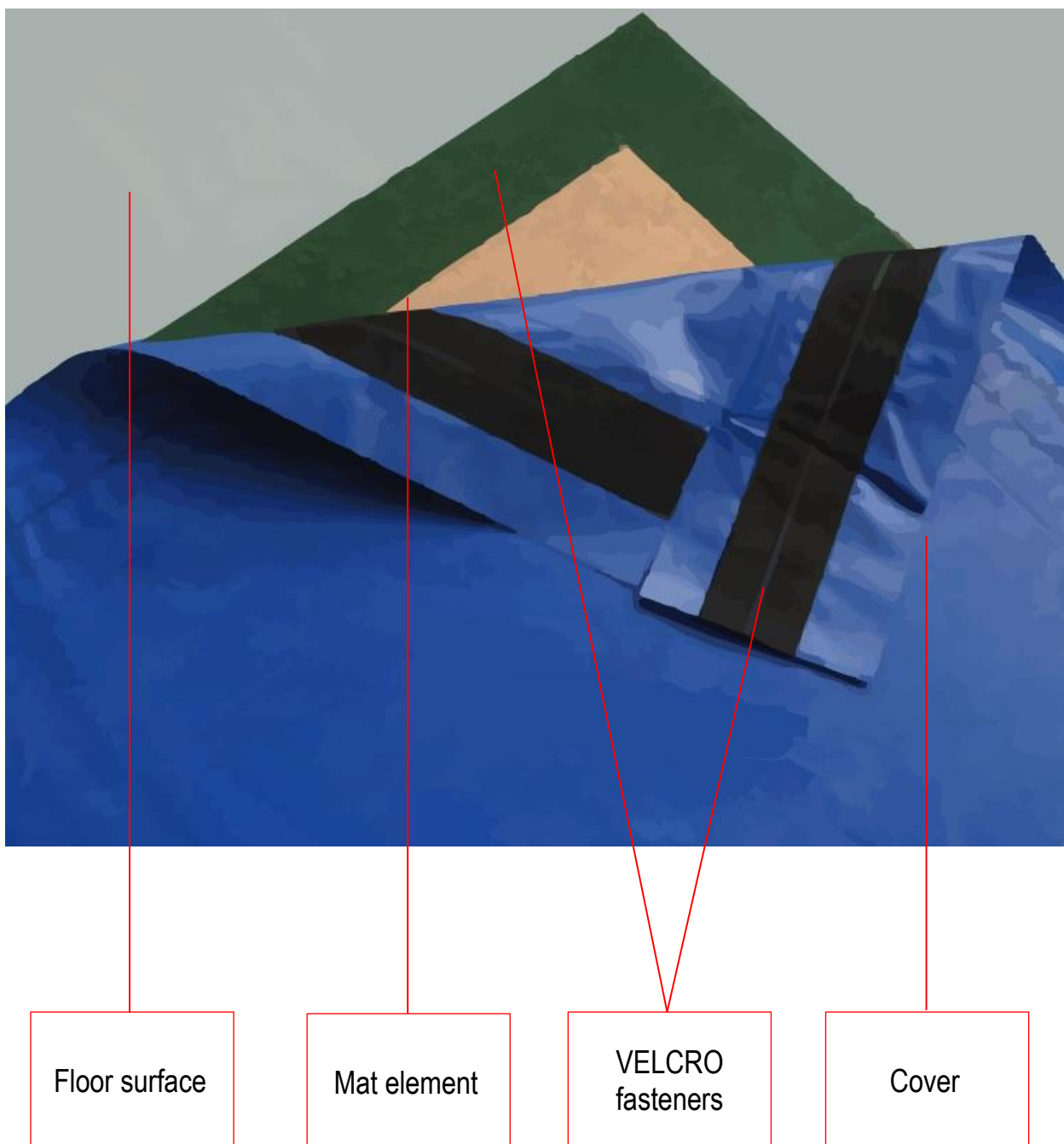
### 3.3 General requirements for placement

- a) durability: high;
- b) wear resistance: high;
- c) material: non-toxic, soft, one color;
- d) without sharp and rough elements which might cause any sort of damage.

Basic dimensions of SAMBO mat

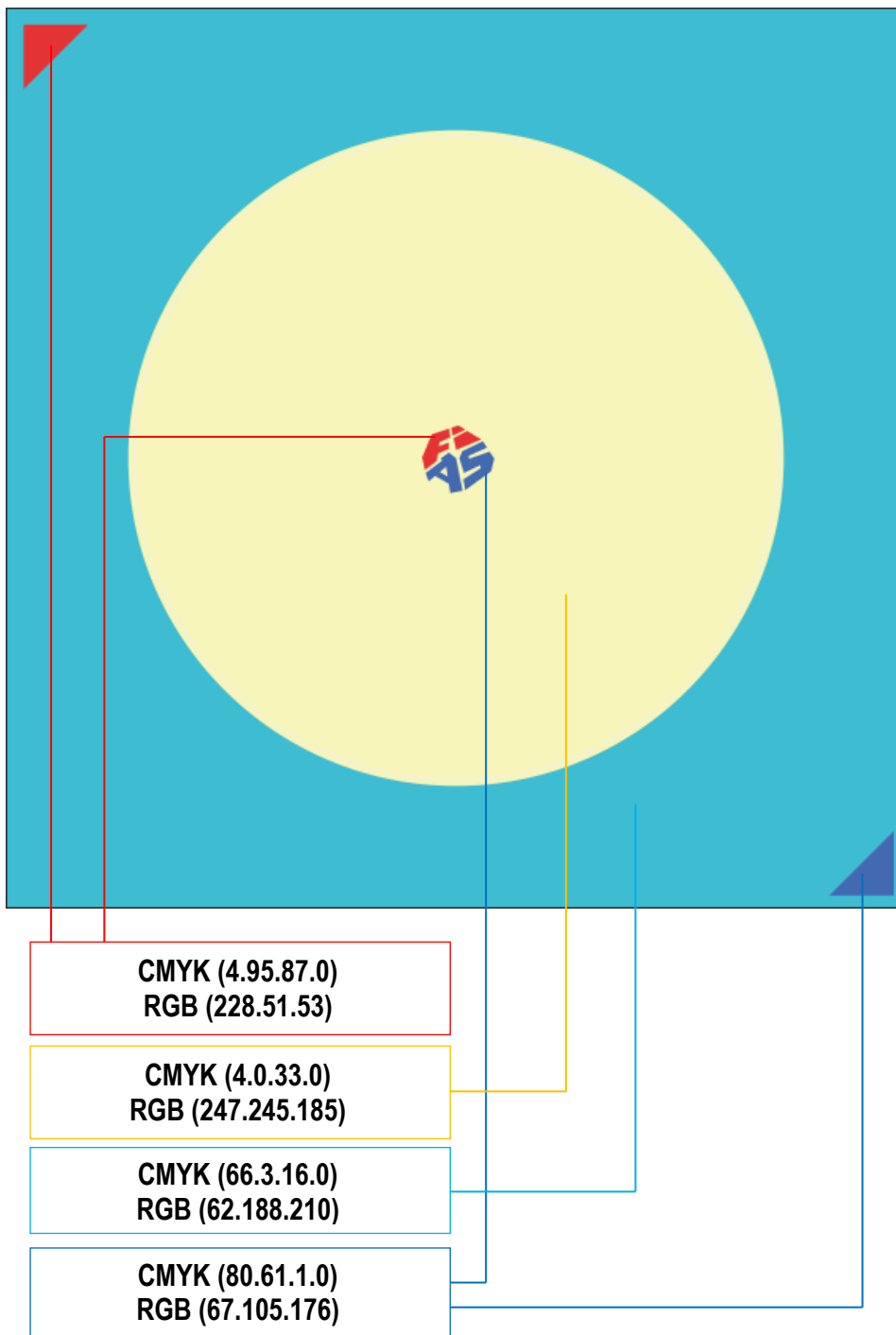


### Primary method of fastening cover to the mats

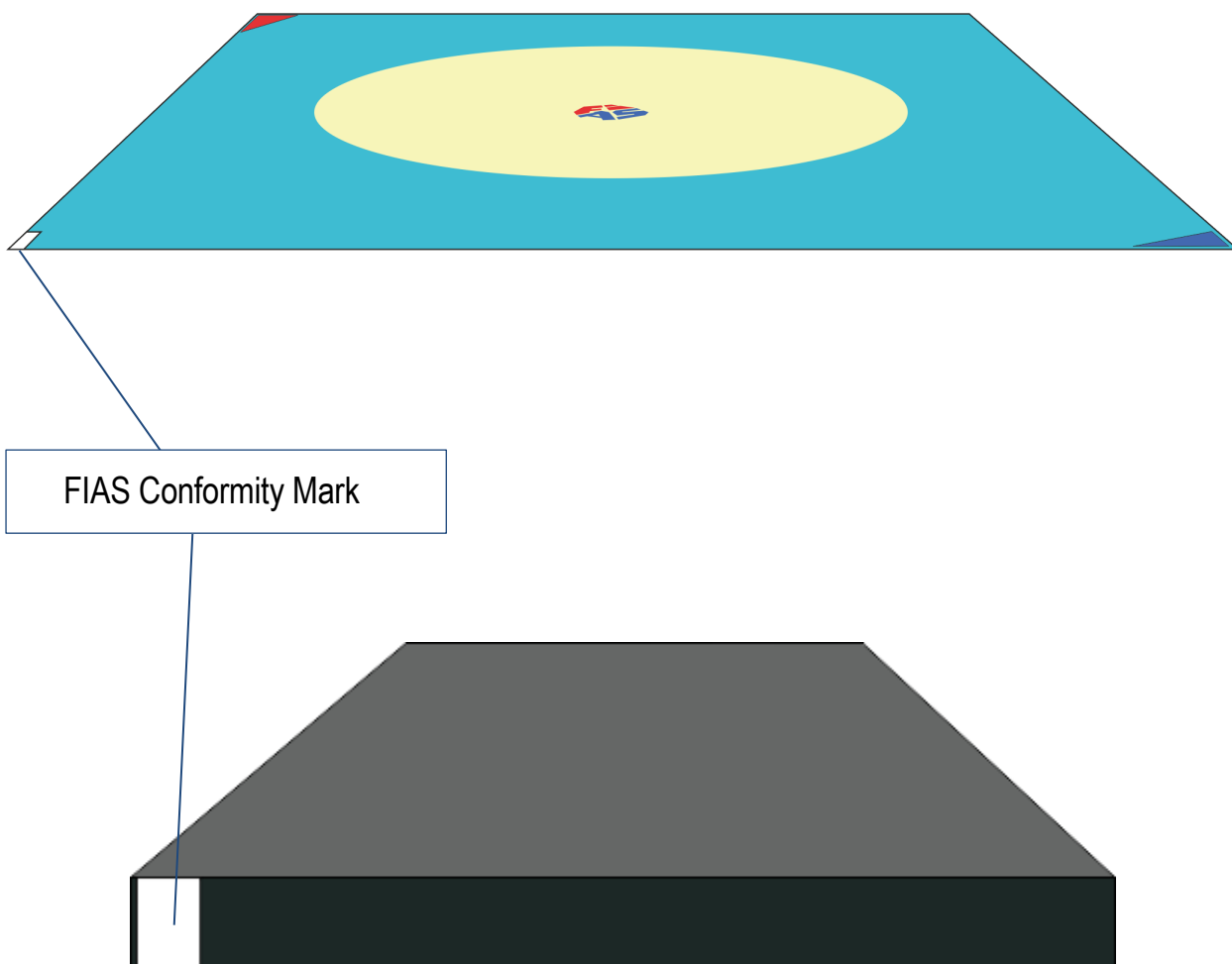




### Primary cover colours



The principle of FIAS conformity mark placement  
for cover and mat element



### The principle of manufacturer's logos placement

