

TECHNICAL DATA SHEET - PUZZLE MAT 3D® BALL SPORTS TILE

Brief description of the Puzzle Mat 3D® Ball Sports Tile :

The Puzzle Mat 3D® Ball Sports Tile made from recycled rubber granules are especially suitable for football, basketball and volleyball. The surface of the "Puzzle Mat 3D" rubber tiles is open-pored smooth, and on the underside of the fall protection elastic rubber tile, 4 cm wide drainage channels are installed for water drainage. Each plate has three puzzle elements that can be placed on the intermediate elements of the other rubber tile. The buttons on the puzzle elements can also be fitted into the button recesses on the opposite side. The rubber tiles are available in the dimensions of 55 x 55 cm.



The top side of the Puzzle Mat 3D®



The bottom side of the Puzzle Mat 3D®



Corner element straight



Edge element straight with the intermediate element



Edge element straight without the intermediate element



Corner element beveled



Edge element beveled with the intermediate element



Edge element beveled without the intermediate element

Colour variations:

The elastic rubber tiles are available in the four basic colours red, green, black, and grey. Small colour defects and differences are possible due to the differences in the recycled base materials.



Red



Green



Black



Grey

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Materials used (90% recycled material - 10% new material):

Base material:	Recycled rubber granules (1-3 mm grain size)
Binder:	PU adhesive
Colourants:	
	(red product) red powder colour
	(green product) green powder colour
	(grey product) grey powder colour

Sizes, weights, and standards:

The Puzzle Mat 3D® Ball Sports Tile has been tested for ball reflection and joint protection according to DIN EN 12235- 2013-12. In addition, the system has been tested for permeability according to DIN EN 12616:2023-06. The TÜV certificates are following the standards MSZ EN 1176-1: 2018 and MSZ EN 1177:2018. The Puzzle Mat 3D® Ball sportmat has a top layer of 15 mm for the 4,5 cm thick version and a top layer of 30 mm for the 6 cm thick version.

The products have a width and length tolerance of 1-2% and a thickness tolerance of 1-2 mm. It is recommended to store the products for at least one week before installation to allow them to reach their final sizes.

Thickness	Size	HIC	Joint protection value	Weight / pc*
4,5 cm	Tiles: 55 x 55 cm / 0,3025 m ² (packaged: 62 x 62 cm)	1,6 m	70%	8,9 kg
	Edge elements: 55 x 25 cm / 0,1375 m ² (packaged: 58,5 x 28,5 cm)			4,5 / 3,8 kg
	Corner elements: 25x25 cm / 0,0625 m ² (packaged: 25 x 28,5 cm)			2,1 / 1,6 kg
6,0 cm	Tiles: 55 x 55 cm / 0,3025 m ² (packaged: 62 x 62 cm)	2,1 m	71%	11,8 kg
	Edge elements: 55 x 25 cm / 0,1375 m ² (packaged: 58,5 x 28,5 cm)			5,9 / 4,8 kg
	Corner elements: 25 x 25 cm / 0,0625 m ² (packaged: 25 x 28,5 cm)			2,8 / 2,0 kg
8,0 cm	Tiles: 55 x 55 cm / 0,3025 m ² (packaged: 62 x 62 cm)	2,8 m	74%	16,5 kg
	Edge elements: 55 x 25 cm / 0,1375 m ² (packaged: 58,5 x 28,5 cm)			8,0 / 6,2 kg
	Corner elements: 25 x 25 cm / 0,0625 m ² (packaged: 25 x 28,5 cm)			3,7 / 2,9 kg

* For the edge and corner elements, the higher weight always refers to the straight version. For the versions without intermediate elements, 30g less weight can be expected per missing intermediate element.

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Fire protection class:

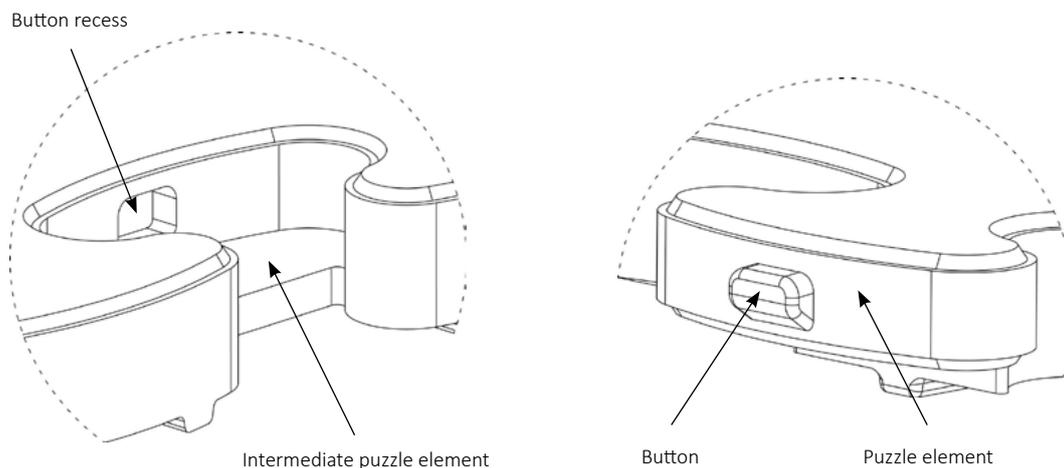
E_{fl} (flammability by direct flame action, burning behaviour by radiant heat)

Evaluation method

- MSZ EN 13501-1:2007+A1:2010
- MSZ EN ISO 11925-2:2011
- MSZ EN ISO 9239-1:2011

Installation of the rubber tiles:

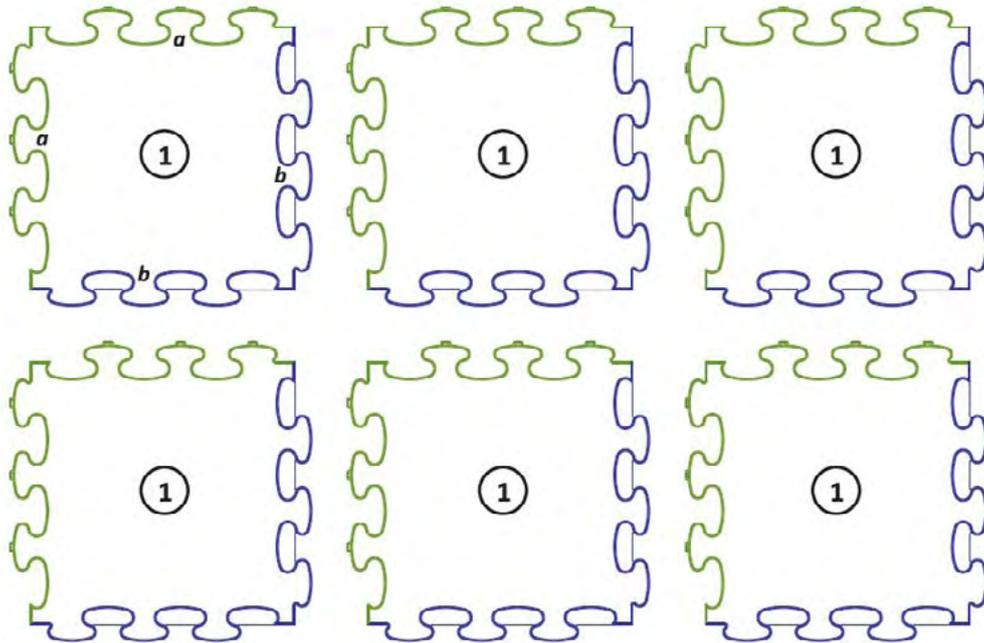
The key elements for connecting the rubber tiles:



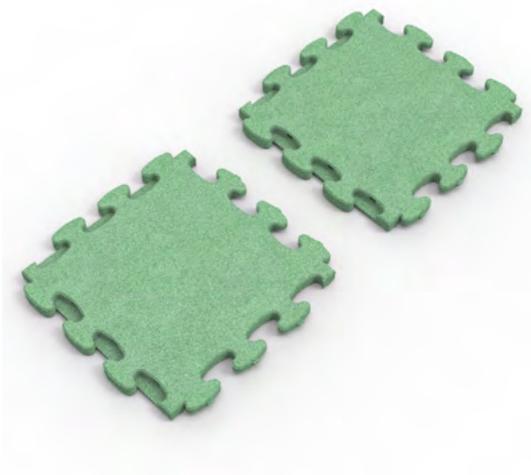
When laying the impact protection elastic rubber tiles, it is necessary to start in the correct order, the respective steps can be carried out as shown in the following illustration:

- the impact protection elastic rubber tiles marked with 1 are connected to each other.
- the sides with the same properties are marked accordingly in green with the letter "a" and in blue with the letter "b".
- the different sides are interlocked. The positive connection points with puzzle elements are connected to the negative connection points with the intermediate elements.
- when connecting the rubber tiles, the buttons on the puzzle elements are fitted into the button recesses of the negative connection points with the intermediate elements

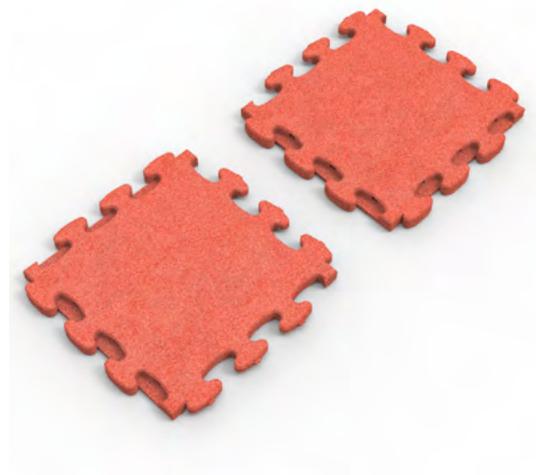
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To prevent the intermediate elements of the "Puzzle Mat 3D®" impact protection rubber tiles from facing each other, it is important to install the rubber tiles as shown in the following illustration.



Correct connection



Incorrect connection