

TECHNICAL DATASHEET - PUZZLE MAT 3D

Brief description of the Puzzle Mat 3D:

The "Puzzle Mat 3D" fall protection tiles made from recycled rubber granules suit particularly playgrounds. The surface of the "Puzzle Mat 3D" rubber tiles is open-pored smooth, and on the bottom side of the fall protection plates, 4 cm wide drainage channels are attached for water drainage. Each tile has three puzzle elements that can be placed on the intermediate elements of the other plate. The buttons on the puzzle elements can also be fitted into the knob recesses on the opposite side. The plates are available in dimensions of 55 x 55 cm.



The upper side of the Puzzle Mat 3D



The bottom side of the Puzzle Mat 3D



Corner tile straight



Edge tile straight with intermediate elements



Edge tile straight without intermediate elements



Corner tile bevelled



Edge tile bevelled with intermediate elements



Edge tile bevelled without intermediate elements

Colour variations:

The tiles are available in the four primary colours: red, green, black, and grey. Minor colour flaws and variations are possible due to differences in the recycled base materials.



Red



Green



Black



Grey

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Used base materials:

Base Material:	Recycled rubber granules (1-3 mm grain size)
Binder:	PU Adhesive
Colourants:	
(red product)	red powder paint
(green product)	green powder paint
(black product)	black powder paint
(grey product)	grey powder paint

Sizes, weights, and fall heights:

Our fall protection products are certified by TÜV SÜD according to the standards MSZ EN 11767-1:2018 and MSZ EN 117:2018. Our "Puzzle Mat 3D" rubber tiles have a fall height of 1.6 m to 2.8 m. 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 so that they reach their final sizes.

Thickness	Size	HIC	Joint protection value	Weight / pcs*
4,5 cm	Tiles: 55 x 55 cm	1,6 m	70%	8,9 kg
	Edge tiles: 55 x 25 cm			4,5 / 3,8 kg
	Corner tiles: 25 x 25 cm			2,1 / 1,6 kg
6,0 cm	Tiles: 55 x 55 cm	2,1 m	71%	11,8 kg
	Edge tiles: 55 x 25 cm			5,9 / 4,8 kg
	Corner tiles: 25 x 25 cm			2,8 / 2,0 kg
8,0 cm	Tiles: 55 x 55 cm	2,8 m	74%	16,5 kg
	Edge tiles: 55 x 25 cm			8,0 / 6,2 kg
	Corner tiles: 25 x 25 cm			3,7 / 2,9 kg

**For the edge and corner tiles, the higher weight always refers to the straight version. For the variants without intermediate elements, there is a weight reduction of 30 gram per missing intermediate element.*

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Fire protection class:

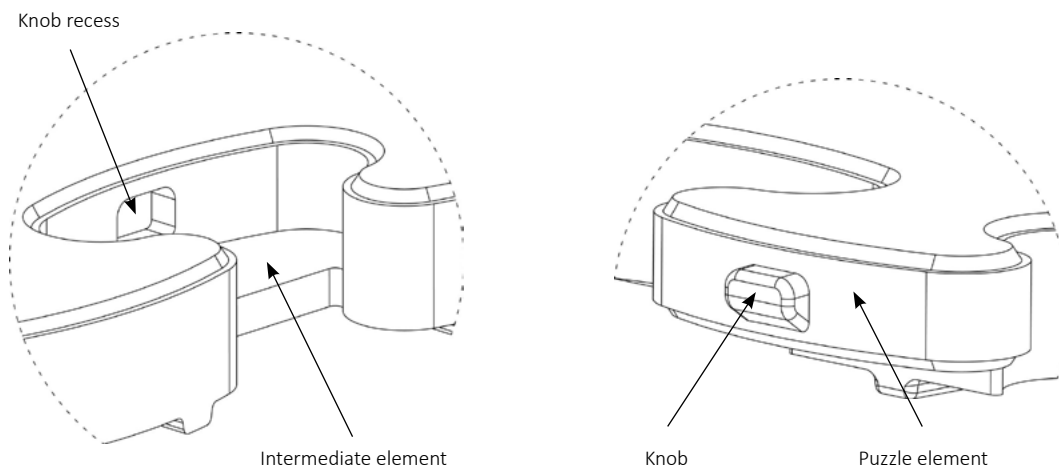
E_{fl} (Flammability due to direct flame exposure, burning behaviour under radiant heat)

Assessment method

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

Installation of the tiles:

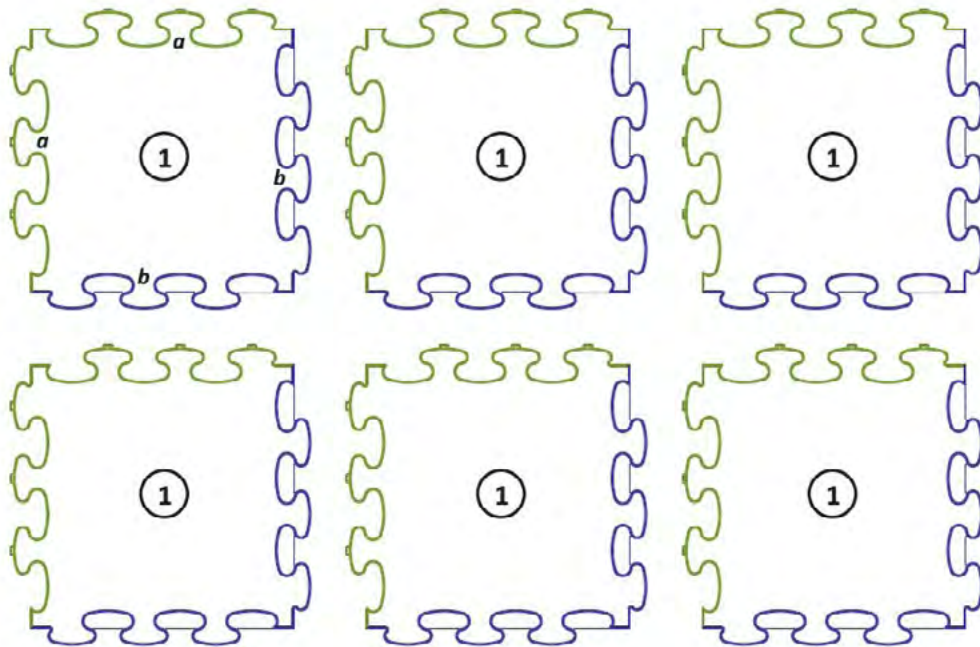
The key elements for interlocking the tiles:



When laying the fall protection tiles, it is necessary to start in the correct order. The following illustration show the respective steps in detail:

- The fall protection tiles are marked with “1” get interconnected;
- The sides with the same properties are marked in green with the letter “a” and the blue with the letter “a”;
- The sides with different properties are interlocked with each other. The positive connection points of the puzzle elements without intermediate elements are linked to the negative connection points with the intermediate elements;
- When interlocking the tiles, the knobs of the puzzle elements are fitted into the knob recesses of the negative connection points with the intermediate elements.

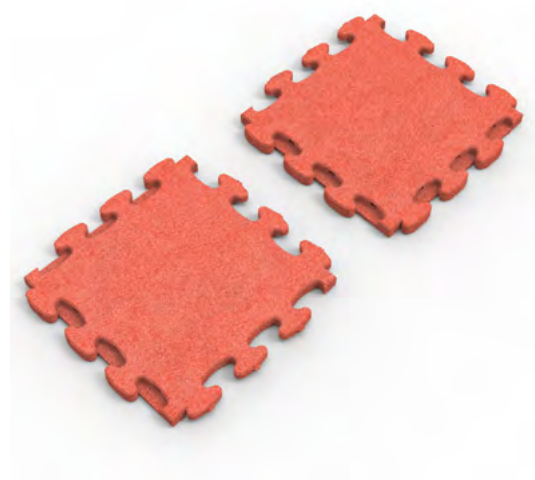
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To prevent the intermediate elements of the “Puzzle Mat 3D” fall protection tiles from facing each other, it is essential to lay the tiles as shown in the following illustration.



Correct connection



False connection