

## TECHNICAL DATA SHEET - PUZZLE MAT 3D® HEALTHY TILE

### Brief description of the Puzzle Mat 3D® Healthy Tile:

The Puzzle Mat 3D® Healthy Tile, made from recycled rubber granules, are suitable for pathway construction. The surface of the "Puzzle Mat 3D®" rubber tiles is smooth and open-pored, with 4 cm wide drainage channels on the underside of the impact protection tiles for water drainage. Each tile has three puzzle elements that can be placed on the intermediate elements of the other 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 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 may occur due to the variations 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 Healthy Tiles were tested for joint cushioning in accordance with DIN EN 12235:2013-12. In addition, the system was tested for permeability in accordance with DIN EN 12616:2023-06. The TÜV certificates were issued in compliance with MSZ EN 1176-1:2018 and MSZ EN 1177:2018. The Puzzle Mat 3D Healthy Tiles feature a wear layer thickness of 15 mm in the 4.5 cm version and a wear layer thickness of 30 mm in the 6.0 cm version. The products have a width and length tolerance of 1–2% and a thickness tolerance of 1–2 mm. It is recommended that the products be stored for at least one week prior to installation to allow them to reach their final dimensions.

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

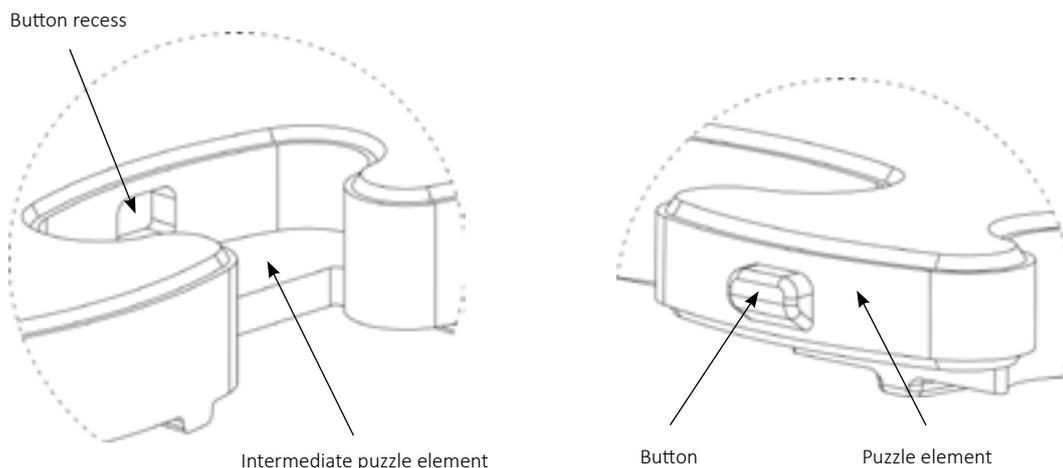
$E_{fl}$  (flammability by direct flame action, burning behaviour by radiant heat)

#### 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:

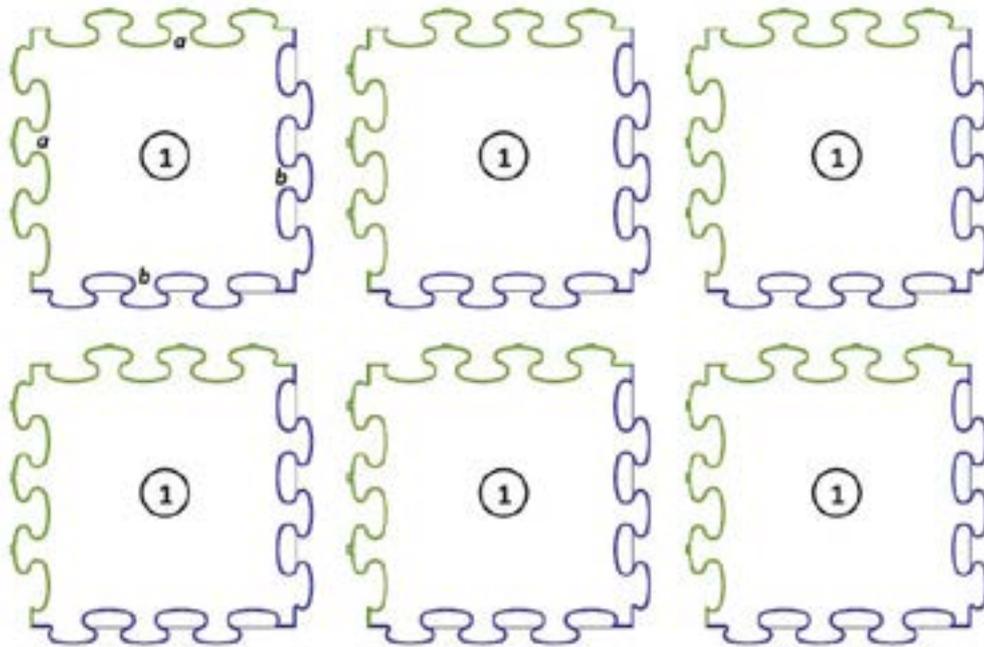
The key elements for connecting the rubber tiles:



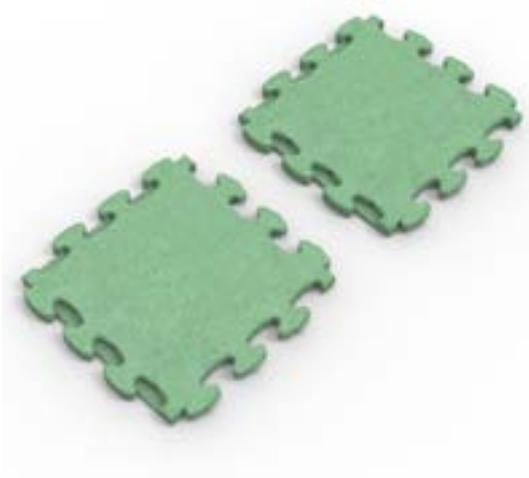
When laying the impact protection elastic rubber tiles, it is necessary to start in the correct order, the respective steps can be carried out as shown in the following illustration:

- 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

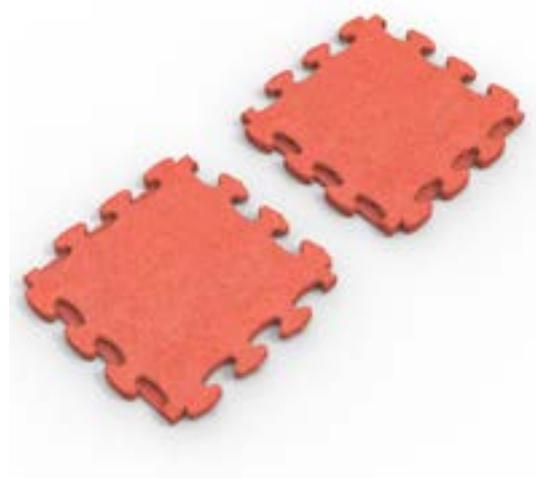
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To prevent the intermediate elements of the "Puzzle Mat 3D®" impact protection rubber tiles from facing each other, it is important to install the rubber tiles as shown in the following illustration.



*Correct connection*



*Incorrect connection*