

TECHNICAL DATA SHEET - PUZZLE MAT 3D® STABLE TILE

Brief description of the Puzzle Mat 3D® Stable Tile:

The Puzzle Mat 3D® Stable Tiles, manufactured from recycled rubber granulate, are suitable for installation in equestrian facilities and stables. The surface of the rubber mats is highly compacted and provides an insulating effect. Urine drainage is ensured by the open-pore surface structure and 4 cm wide drainage channels on the underside of the stable mats. Each mat features three puzzle connectors that can be placed onto the intermediate connectors of adjacent mats. In addition, the knobs on the puzzle connectors can be fitted into the corresponding recesses on the opposite side, creating a secure and stable connection. The mats are available in a size of 55 × 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® Stable 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, achieving a drainage rate of 4 liters per second per square meter. The TÜV certificates were issued in compliance with MSZ EN 1176-1:2018 and MSZ EN 1177:2018. The Puzzle Mat 3D® Stable 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 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:

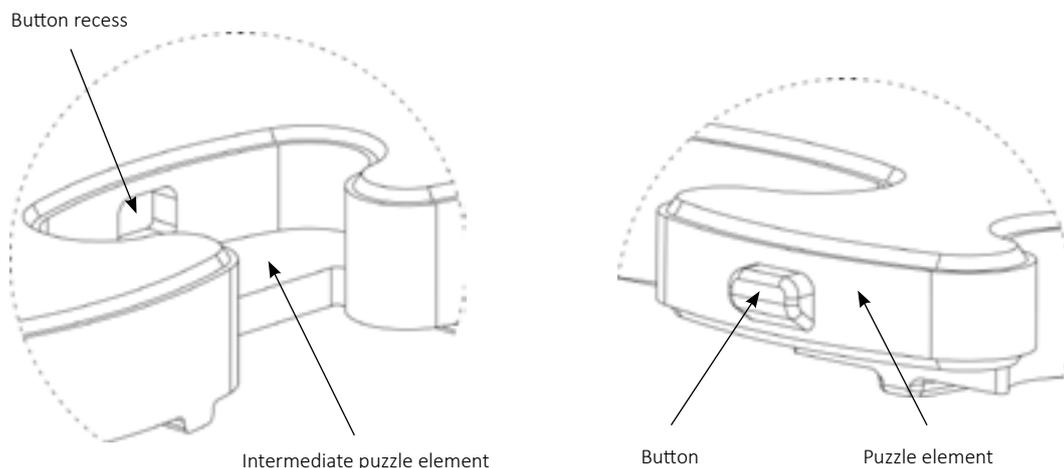
E_{fl} (flammability by direct flame action, burning behaviour by radiant heat)

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:

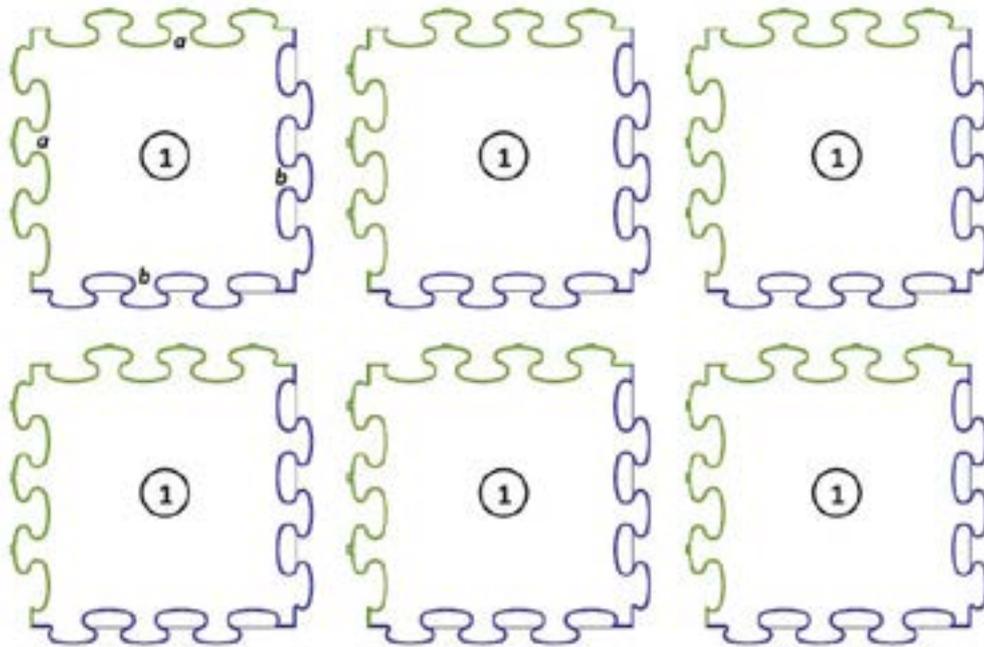
The key elements for connecting the rubber tiles:



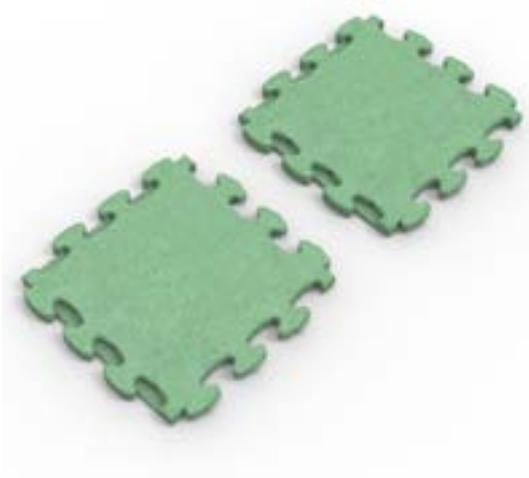
When laying the Puzzle Mat 3D® Stable Tiles, it is necessary to start in the correct order, the respective steps can be carried out as shown in the following illustration:

- the 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

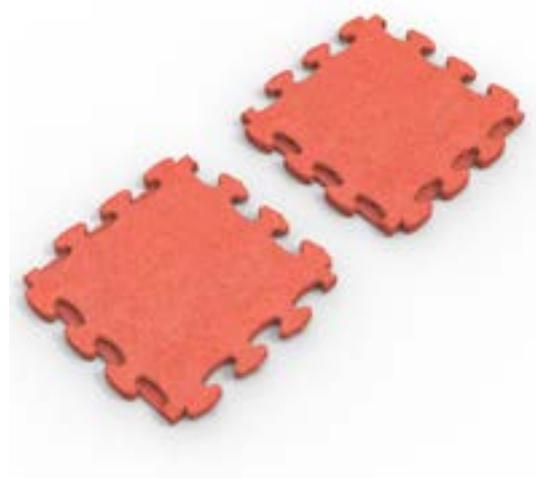
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To prevent the intermediate elements of the Puzzle Mat 3D® Stable Tiles from facing each other, it is important to install the rubber tiles as shown in the following illustration.



Correct connection



Incorrect connection