

# PUZZLE MAT 3D

## OUR LATEST PRODUCT DEVELOPMENT - INTER-CONNECTABLE 3D FALL - PROTECTION TILES

Gum-tech's fall-protection „puzzle mat 3D“ is a new product type in our fall-protection series. Feedback from our customers in recent years has convinced us to go new ways and develop a tile which is easier to install, thus not only saving labour costs but also preventing application faults.

## APPLICATION FAULTS IN THE CASE OF CONVENTIONAL TILES

The proven method of linking fall-protection tiles with plug-type connectors / plastic dowels has the advantage of holding the tiles together firmly. However, disadvantages of this method are the amount of work needed, and the potential fault sources. If the tiles are not laid exactly side by side or plug-type connectors are forgotten, this can result in wide gaps and joints which can shift the tiles in the long run. Unevennesses on the area of use are another risk. Such unevennesses can occur especially with gravel, crushed stone and soil, as well as older concrete surfaces. If these are not corrected professionally, fall-protection tiles and their plug-type connectors can slide out of place, even to the point where the connectors break. The unaesthetic gaps and overlaps arising in such cases can even cause accidents.

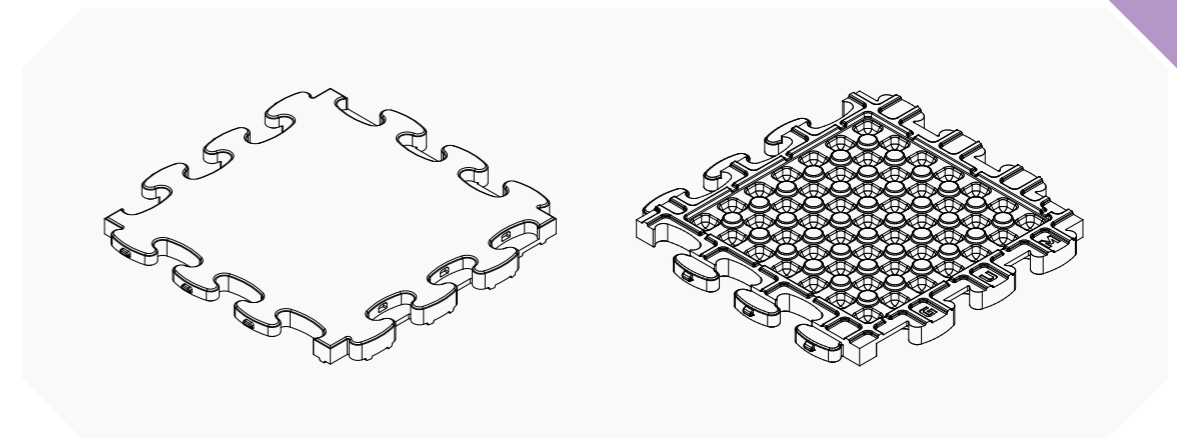
## THE 3D SOLUTION

Puzzle mat 3D offers a new kind of solution here. The puzzle elements can be simply fit together to result in a precisely predefined joint width. Puzzle links alone would not solve the problems already described. For this reason, our technicians have developed 3D intermediate elements (see drawing 1) so that the tiles are connected not only horizontally, but also vertically.

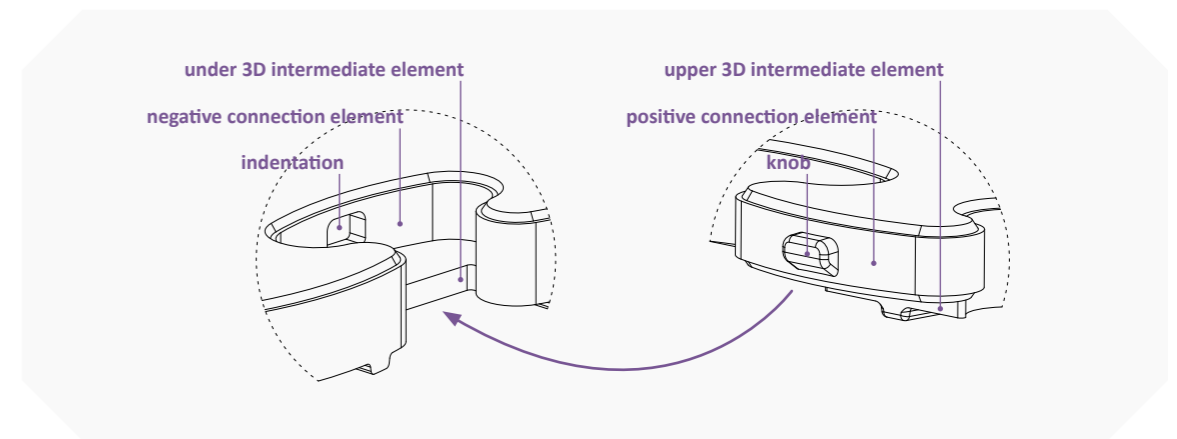
The developed 3D intermediate elements and typical connection elements of the puzzle together form a unit. Additional dovetailing stabilizes this unit. Knobs installed on the positive connection elements form a link here with the respective indentations on the negative connection elements (see drawing 2). With regard to the previously described problems with conventional tiles, no faults are introduced during installation in this case. The spacings are automatically identical, and plug-type connectors are not required.

To prevent costly trimming, we have also included edge and corner tiles which allow neat and accurate closure of the total surface (see drawing 3).

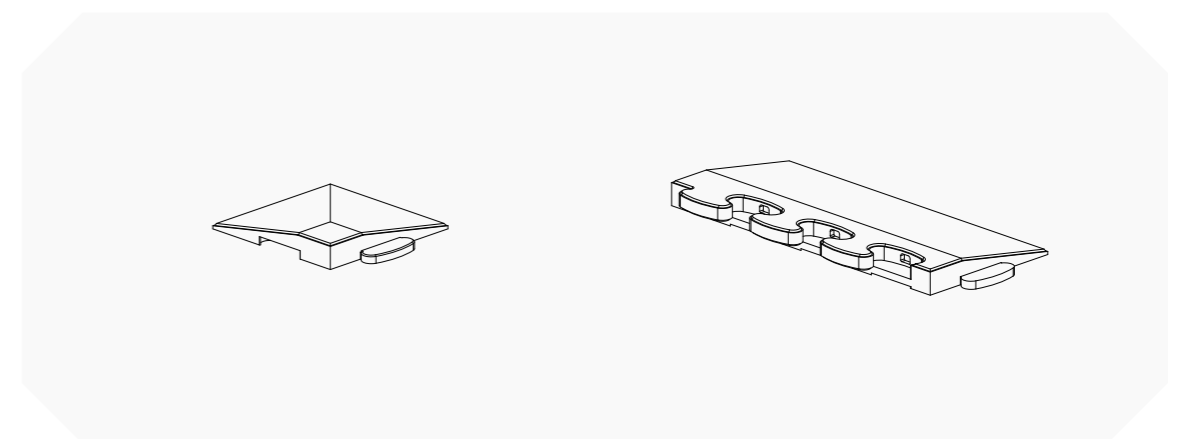
If pits or bulges arise on the surface intended for utilization, the 3D puzzle tiles adapt to the substrate and are not pulled apart. Like all our fall-protection products, puzzle mat 3D is water-permeable, robust, anti-slip and incorporates proven basic materials from Gum-tech.



Drawing 1



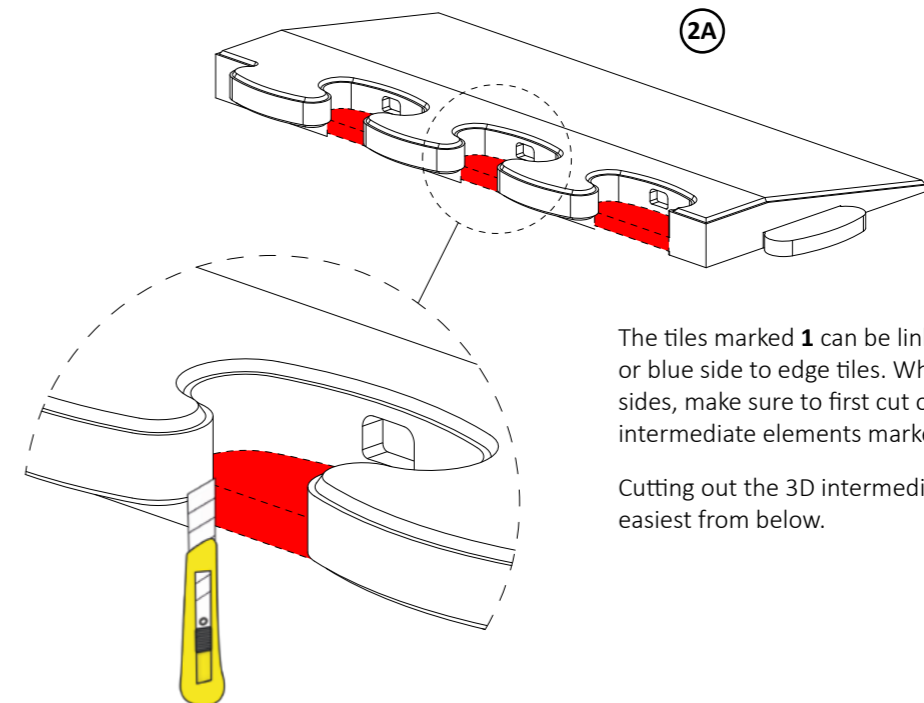
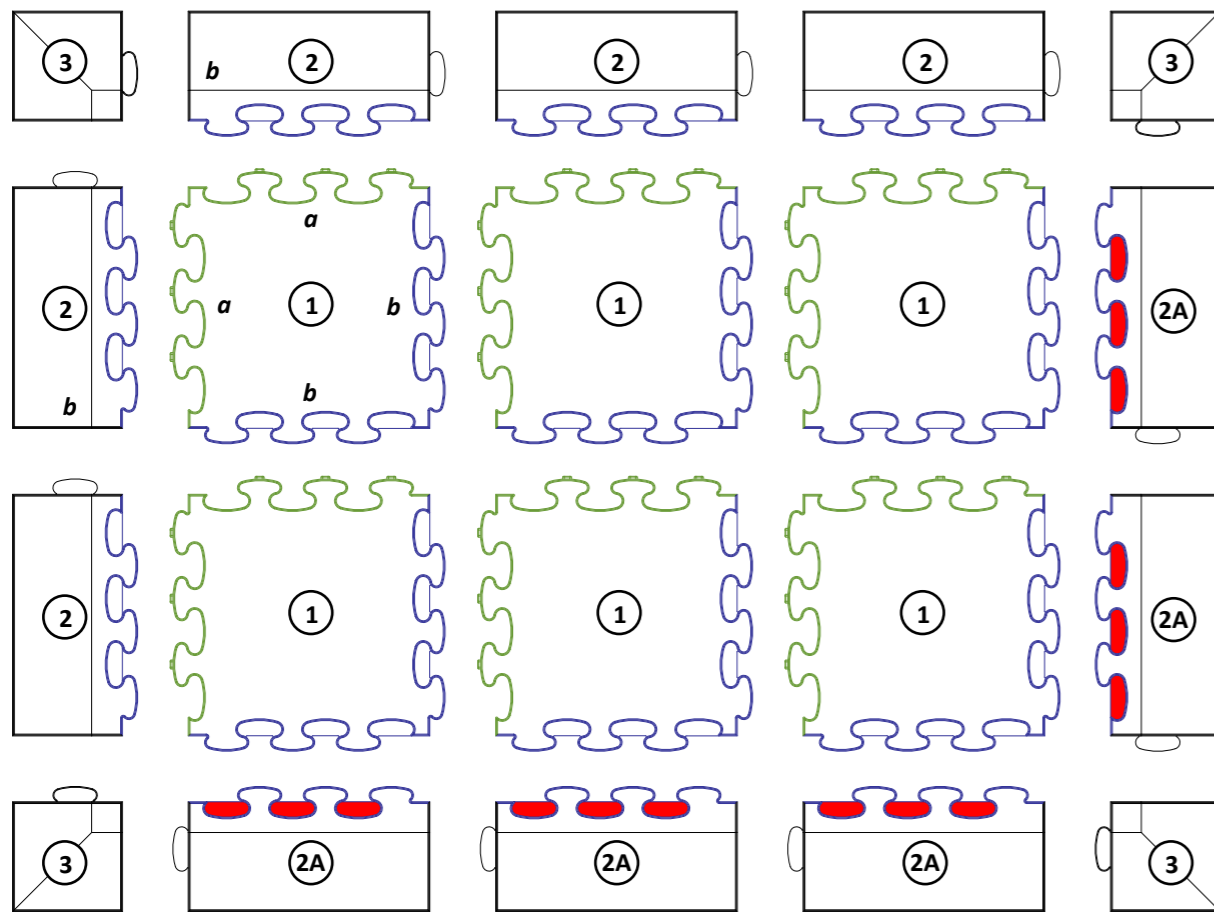
Drawing 2



Drawing 3

## INSTALLATION GUIDE

## REMOVAL OF 3D INTERMEDIATE ELEMENTS



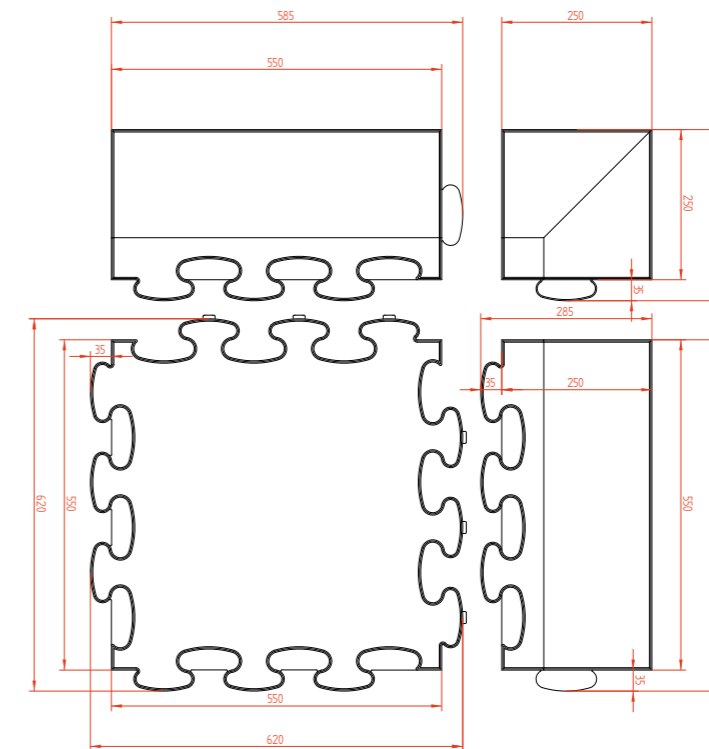
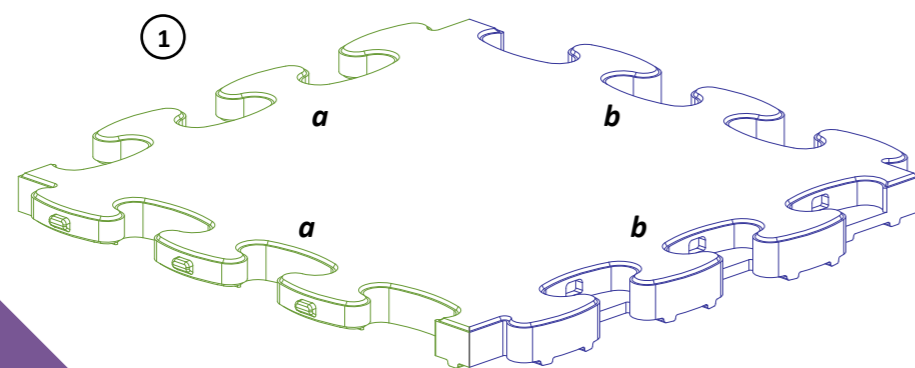
The tiles marked **1** can be linked via their green or blue side to edge tiles. When linking the blue sides, make sure to first cut out the edge tiles' 3D intermediate elements marked red.

Cutting out the 3D intermediate elements is easiest from below.

## DIMENSIONS

Dimensions of 62 x 62 cm should be planned for during loading of puzzle mat 3Ds on pallets. During laying, dimensions of 55 x 55 cm should be planned for. A value of 0.3025 m<sup>2</sup> can be used for calculating areas. If no cutting is planned, it is advisable to take into account the width of the border and corner tiles.

- Laying of the tiles starts with fitting together the corner tiles marked **3** and the edge tiles marked **2**.
- In the next step, the tiles marked **1** are fitted together. The different types of side are a decisive factor here. We have indicated sides with the same characteristics respectively in green (letter **a**) and blue (letter **b**). Different sides are fit together in each case. The positive connection elements are linked to the negative connection elements here.
- After the pieces of the puzzle have been connected together, the surface must be completed by means of edge and corner tiles. More information about this topic and removal of the 3D intermediate elements is provided next.



# PUZZLE MAT 3D



A further development in our F assortment, the new puzzle mat 3D can be laid without plug-type connectors. The tiles can be easily laid on different sub-surfaces. The tiles remain firmly joined even in the presence of unevenness.

Like the tiles of the F-series, the puzzle mat 3D fall-protection tiles are made of high-grade granules and binders in an eco-friendly process. The plates are also anti-slip and water-permeable.



Tile size:  
**55 x 55 cm**

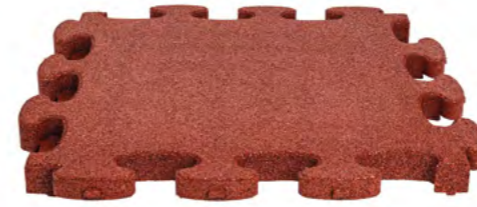


Tile thickness:  
**4,5 - 8,0 cm**



Tile weight:  
**6,9 - 16,5 kg/piece**

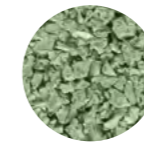
HIC	Thickness	Weight
160 cm	4,5 cm	ca. 6,9 kg/piece
210 cm	6,0 cm	ca. 11,8 kg/piece
280 cm	8,0 cm	ca. 16,5 kg/piece



## COLOURS



Red



Green



Black



Grey

## ADVANTAGES

- tested quality
- dovetailing with 3-fold safeguarding
- no sliding of tiles
- easy application
- extremely resilient
- little work needed
- water-permeable
- patent protection

## POSSIBLE APPLICATIONS

playgrounds, balconies, terraces, swimming-pools, kindergartens, sport centers and schoolyards

