

Title (en)
FABRIC STRUCTURE WITH CELLULAR CONSTRUCTION

Title (de)
GEWEBESTRUKTUR MIT ZELLULAREM AUFBAU

Title (fr)
STRUCTURE EN TISSU À CONSTITUTION CELLULAIRE

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Application
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Abstract (en)
[origin: WO2014121787A2] The invention relates to a fabric structure (1) having a cellular construction. The fabric structure comprises • at least one base layer (6) consisting of warp threads (10), • at least one top layer (7) consisting of warp threads (11), and • weft threads (2) placed in between, wherein the fabric structure (1) is formed by a multiplicity of three-dimensional cells (3, 9) and the height (8) of each individual cell (3, 9) is defined by the spacing (8) between two warp threads (10, 11), located one above the other in the height direction z, in adjacent layers (6, 7), the length (12) of the cell (3, 9) is defined by the spacing (12) between two warp threads (10) or (11), adjacent in the weft direction x, in one layer (6, 7), and the width (13, 14) of a cell (3, 9) is defined by the extent (13) of the weft thread course in the warp direction y and/or by the spacing (14) between two weft threads (2) that are opposite in the warp direction y and adjacent to the particular cell (9). According to the invention, each weft thread (2) extends at least regionally in the fabric structure (1) in a dimensionally stable and three-dimensional manner and winds in the weft direction x about an axis (4) that extends in the weft direction x and in each case through a row of cells (3), and in the process encloses about this axis (4) an imaginary, three-dimensional elongate hollow body, extending through the cells (3), having any desired end face (5). The weft threads (2) intersect the warp threads (10, 11) such that the weft threads (2) and warp threads (10, 11) retain one another and the fabric structure (1) is self-supporting.

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