

Title (en)  
PNEUMATIC STRUCTURE

Title (de)  
PNEUMATISCHE STRUKTUR

Title (fr)  
STRUCTURE PNEUMATIQUE

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Application  
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Abstract (en)  
[origin: WO2005117659A1] A pneumatic structure, which enables a good deformability while also meeting high demands with regard to sitting comfort, is comprised, in contrast to single-layer structures like those commonly found in air mattresses and pneumatic seat cushions, of at least three layers (3) in gas-filled tubular cells (2) arranged in a row. The structure (1) is made from a flexible expandable gas-tight membrane (5). This membrane (5) is comprised, for example, of a suitable plastic film. The cells (2) are joined to the adjacent cells (2) over a portion of their periphery whereby forming portions of transversal webs (7) and longitudinal webs (8). Communicating cells (2), which are under the same pressure, form one or more combinations of cells (2) and each have at least one valve (4) that serves to pressurize the individual cell (2) or a combination of cells (2) with a compressed gas. In the first embodiment, four cells (2) meet along a line (6) extending in a longitudinal direction.

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