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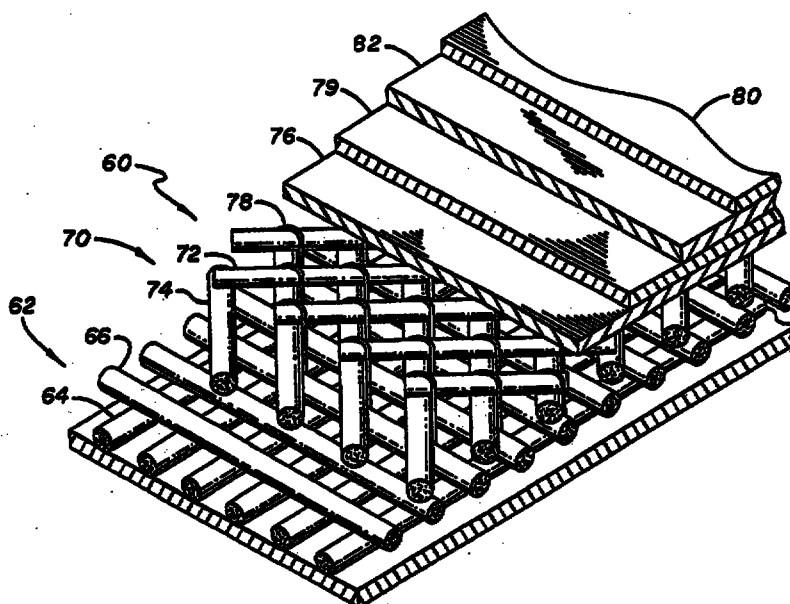
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(54) Title: FLEXIBLE MATERIAL FOR USE IN AN INFLATABLE STRUCTURE



(57) Abstract

The invention is a material suitable for use as the wall of a pressurized container such as the gas bag of a lighter-than-air vehicle. In detail, the invention includes a first flexible ply (64) having filamentary material comprising unidirectional filamentary material at 0 and 90 degrees to each other. A second flexible layer (70) is included having unidirectional filamentary material at 0 and 90 degrees to each other and at 45 degrees to the filamentary material of the first ply (64). The strain value at failure for the filamentary material of the second ply (70) is greater than the 0 and 90 degree filamentary material of the first layer (64). The first and second plies (64, 70) are bonded together by a resin. Preferably, an additional film (79) of gas impermeable material and an ultraviolet radiation resistant material (80) are bonded to the first two plies (64, 70).

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