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(54) **RIGID FIBER NETWORK STRUCTURES HAVING IMPROVED POST-YIELD DIMENSIONAL RECOVERY, METHOD OF MAKING SAME, AND ARTICLES INCORPORATING SAME**

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(51) **Int. Cl.**⁷ **B32B 3/00**

(52) **U.S. Cl.** **428/166; 428/167; 428/169; 428/174**

(58) **Field of Search** 428/174, 175, 428/176, 178, 212, 225, 229, 253, 257, 246, 251, 284, 285, 286, 287, 136, 166, 167, 169; 264/258

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(57) **ABSTRACT**

A rigid three-dimensionally shaped fiber network structure having improved post-yield dimensional recovery is provided. The fiber network structure is formed from a fabric containing (A) at least one oriented, semi-crystalline monofilament yarn made from a first thermoplastic polymer, and (B) a second thermoplastic polymer which effects bonding of the monofilament cross-over points. The fiber network structures are useful in a variety of articles, including sandwich panels, various spacers, drainage systems, and energy absorption structures.

16 Claims, No Drawings