

Title (en)

Production and application of a permanently deformable textil material made out of hybrid yarn

Title (de)

Hybridgarn und daraus hergestelltes permanent verformbares Textilmaterial, seine Herstellung und Verwendung

Title (fr)

Fabrication et utilisation d'un matériau textile mis en forme de manière permanente et réalisé à partir d'un fil hybride

Publication

EP 0737763 B1 20001227 (DE)

Application

EP 96105008 A 19960329

Priority

DE 19513506 A 19950410

Abstract (en)

[origin: EP0737763A2] Hybrid yarn comprises: (A) reinforcing filaments with: (i) an initial modulus of more than 600 (800-25,000, pref. 2000-20,000) cN/tex; (ii) a max. tensile strength of more than 60 (80-220, pref. 100-200) cN/tex; (iii) a max. elongation of 0.01-20 (0.1-7.0 pref. 1-5) %; and (iv) a degree of crimping of 5-60 (12-50, pref. 18-36) %; and (B) thermoplastic matrix filaments with a m.pt. at least 10 (20-100, pref. 30-70) degrees C below the m.pt. of (A). Also claimed are: (i) permanently ductile textile sheet contg. an amt. of hybrid yarn sufficient to have a significant effect on the ductility of the sheet; (ii) fibre-reinforced mouldings; (iii) a process for the prodn. of hybrid yarn from components (A) and (B) in a swirling or blow-texturing system in which at least (A) is introduced with an overfeed of 5-60%; (iv) a process for the prodn. of textile sheet as above (i) by weaving, knitting, laying or matting; and (v) a process for the prodn. of mouldings as above (ii) by forming textile sheet (i) at a temp. above the m.pt. of (B) and below the m.pt. of (A).

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US5879800A; US6109016A; EP0801159A3; EP0928840A3; DE102015005974A1; US8499539B2; WO2012065598A3; WO2009130495A3

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