

Title (en)
COMPOSITE MOLDED PART, IN PARTICULAR FOR FURNITURE CONSTRUCTION

Title (de)
VERBUNDFORMTEIL INSBESONDERE FÜR DEN MÖBELBAU

Title (fr)
PIÈCE MOULÉE COMPOSITE DESTINÉE EN PARTICULIER À LA FABRICATION DE MEUBLES

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Abstract (en)
[origin: WO2011026977A1] The invention relates to a composite molded part, in particular for furniture construction, contains a core layer and one or more layers, wherein the core layer is designed as a closed-cell extrusion foam sheet having a cell count of 1-30 cells per mm and a density of 20-200 g/l and can be obtained by extrusion foaming a foamable melt, comprising (a) heating a polymer component P, which is composed of 85 to 100% by weight of component P', consisting of P1) 100 to 0% by weight (in relation to P') of one or more alpha-methyl styrene acrylonitrile copolymers (AMSAN), containing P11) 18 to 40% by weight (in relation to AMSAN) acrylonitrile embedded by polymerization, P12) 60 to 82% by weight (in relation to AMSAN) alpha-methyl styrene embedded by polymerization (P121) or a mixture, embedded by polymerization, of alpha-methyl styrene and styrene (P122), P13) 0 to 22% by weight (in relation to AMSAN) of at least one monomer embedded by polymerization from the group consisting of alkyl(meth)acrylates, (meth)acrylic acid, maleic acid anhydride and maleinimides, and P2) 0 to 100% by weight (in relation to P') of one or more styrene acrylonitrile copolymers (SAN), containing, preferably consisting of, P21) 18 to 40% by weight (in relation to SAN) acrylonitrile embedded by polymerization, P22) 60 to 82% by weight (in relation to SAN) styrene embedded by polymerization, and P23) 0 to 22% by weight (in relation to SAN) of at least one monomer embedded by polymerization from the group consisting of alkyl(meth)acrylates, (meth)acrylic acid, maleic acid anhydride and maleinimide, wherein the sum of the percentages by weight of P1 and P2 is 100% by weight, in relation to P', and P3) 0 to 15% by weight (in relation to P) of one or more thermoplastic polymers from the group consisting of styrene polymers and copolymers, polyolefins, polyacrylates, polycarbonates (PC), polyesters, polyamides, polyether sulfones (PES), polyether ketones (PEK) and polyether sulfides (PES), to form a polymer melt, (b) introducing 1 to 12% by weight (in relation to P) of an expanding agent component T, which preferably contains less than 0.2% by weight water (in relation to P), containing b1) 15 to 95% by weight (in relation to T) carbon dioxide and b2) 5 to 85% by weight (in relation to T) of one or more co-expanding agents selected from the group consisting of C1-C4 alcohols and C1-C4 carbonyl compounds, into the polymer melt to form a foamable melt, (c) extruding the foamable melt in a range of lower pressure to foam it into the extrusion foam, (d) optionally adding additives to the polymer component P in at least one of steps a), b) and/or c).

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