

Title (en)

FLAME RETARDANT POLYAMIDE COMPOSITIONS, USES OF SAME AND PROCESSES FOR THE PREPARATION THEREOF

Title (de)

FLAMMHEMMENDE POLYAMIDZUSAMMENSETZUNGEN, VERWENDUNGEN DAVON UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

COMPOSITIONS DE POLYAMIDE IGNIFUGES, LEURS UTILISATIONS ET LEURS PROCEDES DE PREPARATION

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Application

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Abstract (en)

[origin: WO2022214754A1] The invention relates to a composition for a thermoplastic composite material, comprising: (a) from 65 to 95% by weight of at least one reactive semi-crystalline polyamide prepolymer having an average molecular mass Mn of 8000 g/mol or less and having a volume median diameter Dv50 of the reactive semi-crystalline polyamide prepolymer powder particles of 10 to 300 µm; (b) from 5 to 35% by weight of at least one flame retardant selected from an at least partially meltable flame retardant in powder form and a non-meltable flame retardant in the form of a pre-milled powder and having a volume median diameter Dv50 of 1 to 50 µm; and (c) from 0 to 2% by weight of at least one meltable or non-meltable additive and having a volume median diameter Dv50 of 1 to 50 µm if it is non-meltable and in powder form; the composition being obtained by extruding, including melting, said semi-crystalline polyamide prepolymer but having an average molecular weight Mn of 5,000 g/mol or less, said at least partially meltable flame retardant, and optionally said meltable additive, and then grinding in powder form, said composition having, after grinding, a volume median diameter Dv50 of the powder particles of 10 to 300 µm, and said reactive polyamide prepolymer comprising or consisting of at least one Z/BACT/XT copolyamide wherein: the molar sum Z + BACT + XT is equal to 100%, and the sum of the constituents (a) + (b) + (c) is equal to 100%.

IPC 8 full level

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