

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: WO2022214755A1] 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 molar mass M_n of less than 5000 g/mol and having a volume median diameter Dv_{50} 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 having a volume median diameter Dv_{50} of 10 to 300 μm , and a non-meltable flame retardant in the form of a pre-milled powder and having a volume median diameter Dv_{50} of 1 to 50 μm ; and (c) from 0 to 2% by weight of at least one additive, and said reactive polyamide prepolymer comprising or consisting of at least one Z/BACT/XT copolyamide wherein: - BACT is an amide unit having a molar ratio of 10 to 65%; - XT is an amide unit having a molar ratio of 30 to 60 mol%; - Z is an amide unit unit present at a molar ratio ranging from 5 to 30%; and wherein the molar sum $Z + BACT + XT$ is equal to 100%, the sum of the constituents (a) + (b) + (c) is equal to 100%, and said reactive semi-crystalline polyamide prepolymer has a melting point $T_f < 300^\circ C$, a glass transition temperature $T_g > 80^\circ C$, and a difference between the melting point and the crystallization temperature $T_f - T_c < 70^\circ C$.

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