Title (en)

PROCESS FOR PRODUCING A POLYMER COMPOSITION

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER POLYMERZUSAMMENSETZUNG

Title (fr)

PROCÉDÉ DE PRODUCTION D'UNE COMPOSITION POLYMÈRE

Publication

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Application

EP 20737484 A 20200715

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Abstract (en)

[origin: WO2021009190A1] The present invention concerns aprocess for producing a polymer composition characterized in that a prepolymer based on ethylene (P) is obtained in a prepolymerization zone by polymerization conducted in slurry in the presence of ethylene, optionally at least one comonomer selected from alpha-olefins having from 4 to 10 carbon atoms and optionally hydrogen and a first ethylene polymer component (A) is obtained in a first polymerization zone by polymerization conducted in slurry in the presence of ethylene, optionally at least one comonomer selected from alpha-olefins having from 4 to 10 carbon atoms and optionally hydrogen and a second ethylene polymer component (B) is obtained in asecond polymerization zone by polymerization conducted in slurry in the presence of ethylene, first ethylene polymer component (A), at least one comonomer selected from alpha-olefins having from 4 to 10 carbon atoms and optionally hydrogen and a third ethylene polymer component (C) is obtained in a third polymerization zone by polymerization conducted in gas phase in the presence of ethylene and, at least one comonomer selected from alpha-olefins having from 4 to 10 carbon atoms, to produce a multimodal polymer of ethylene (a) with at least one comonomer selected from alpha-olefins having from 4 to 10 carbon atoms, -which has a) a density between 900 and 960 kg/m 3 b) MFR 2 of 0.1 to 25g/10 min (according to ISO 1133 at 190°C under 2.16 kg load), c) MWD of 2 to 6, -which comprises at least -between 0.5 to <5 wt% of an prepolymer based on ethylene (P) -between 10 to < 25 wt% of an ethylene polymer component (A), -between 10 to < 25 wt% of an ethylene polymer component (B) and -between > 51 and 79.5 wt% of an ethylene polymer component (C) and wherein the densities of ethylene polymer components (A) and (B) are each between 925 and 970 kg/m3 and the density of ethylene polymer component (C) has a density between 880 and 950 kg/m3, wherein further the ethylene polymer components (A), (B) and (C) have different MFR2 values.

IPC 8 full level

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