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(54) Title: PROCESS FOR MAKING ETHYLENE INTERPOLYMERS AND INTERPOLYMERS MADE THEREBY; COMPO-
SITIONS AND ELECTRICAL DEVICES CONTAINING SUCH INTERPOLYMERS

(57) Abstract: The invention relates to a continuous polymerization process for preparing a random ethylene interpolymer with propylene and/or 1-butene which comprises: (A) polymerizing ethylene, and as an α -olefin comonomer propylene and/or 1-butene under continuous random polymerization conditions in the presence of single site catalyst system employing an ionic activator having cyclic ligands shielding a central charge bearing atom, at a temperature of 140° C to 250° C at a conversion of ethylene of 80 to 99% and a comonomer conversion of from at least 30 % and (B) devolatilizing the polymer to provide an ethylene copolymer having a density of from 0.85 to 0.92 g/cm³, an MI of from 0.01 to 100 g/10 min, preferably from 0.1 to 20, and I₂₁/I₂ of from 30 to 400. The invention also relates to polymers made such processes containing as α -olefin comonomer propylene and/or 1-butene, having density of from 0.85 to 0.92 g/cm³, an MI of from 0.01 to 100 g/10 min and an I₂₁/I₂ of from 30 to 400 obtained by solution polymerization using a transition metal complex as a catalyst and a non-coordinating anion to provide a level of NCA derived residue, as determined by boron content, less than 0.5ppm. as determined by ICP, preferably undetectable by ICP. The polymers may be blended with EP rubber elastomers and be used for electrical cable insulation.



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