

Title (en)

ETHYLENE POLYMER PRODUCT HAVING A BROAD MOLECULAR WEIGHT DISTRIBUTION, ITS PREPARATION AND USE

Title (de)

ETHYLEN POLYMER MIT BREITER MOLEKULARGEWICHTSVERTEILUNG, SEINE HERSTELLUNG UND VERWENDUNG

Title (fr)

PRODUIT A BASE DE POLYMERES D'ETHYLENE POSSEDANT UNE REPARTITION DE POIDS MOLECULAIRE ETENDUE, ET PREPARATION ET UTILISATION DE CE PRODUIT

Publication

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Application

EP 97925086 A 19970606

Priority

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- FI 962366 A 19960607

Abstract (en)

[origin: WO9747682A1] Although ethylene polymer products having a bimodal or multimodal molecular weight distribution have good processability and mechanical properties, these properties are not entirely satisfactory. Such bimodal or multimodal ethylene polymer products are now being improved by (a) forming a blend of a first ethylene polymer having a first average molecular weight and a first molecular weight distribution and at least a second ethylene polymer having a second average molecular weight which is higher than said first average molecular weight and a second molecular weight distribution giving the blend a third average molecular weight and a third molecular weight distribution which is at least bimodal, (b) heating and melt processing the blend of step (a) into a molten ethylene polymer having a fourth average molecular weight and a fourth molecular weight distribution, and (c) cooling and solidifying the molten ethylene polymer into said ethylene polymer product, whereby in step (b), the blend of step (a) is subjected to controlled free radical reactions in such a way that the fourth average molecular weight is higher than, or approximately equal to, the third average molecular weight, and the fourth molecular weight distribution is broader than the third at least bimodal molecular weight distribution.

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