

Title (en)

METHOD OF PREPARING BLOCK COPOLYMERS FOR TYRE TREAD COMPOSITIONS AND THE COPOLYMERS THUS PREPARED

Title (de)

VERFAHREN ZUR HERSTELLUNG VON BLOCKCOPOLYMEREN FÜR REIFENPROFILZUSAMMENSETZUNGEN

Title (fr)

PROCEDE DE PREPARATION DE COPOLYMERES A BLOCS POUR COMPOSITIONS DE BANDE DE ROULEMENT DE PNEUMATIQUE

Publication

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Application

EP 02783065 A 20021031

Priority

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- FR 0114417 A 20011031

Abstract (en)

[origin: WO03037946A2] The invention relates to: a method of preparing a two-block copolymer which can be used in a sulphur-crosslinkable rubber composition having reduced hysteresis in the crosslinked state; one such block copolymer in which one of the blocks comprises a polyisoprene and the other block comprises a diene elastomer other than polyisoprene; and said rubber composition which is intended for tyre treads. The inventive method of preparing said copolymer consists in copolymerising one or more monomers comprising a conjugated diene other than isoprene using a catalytic system containing: at least one hydrocarbon solvent; a compound A of a metal from group IIIA; a compound B of an alkaline-earth metal; and a polymer initiator C comprising a bond C-Li which is formed by a monolithiated polyisoprene that is intended to form said polyisoprene block, the number-average molecular weight Mn1 of said polyisoprene block having a value of between 2 500 and 20 000 g/mol. In this way, said method can be used to obtain the aforementioned copolymer in which the other block comprising the diene elastomer has a number-average molecular weight Mn2 of between 65 000 and 350 000 g/mol and a 1,4-trans chaining content that is equal to or greater than 70 %.

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