

Title (en)

PREPARATION METHOD FOR ULTRAHIGH MOLECULAR WEIGHT POLYETHYLENE FIBER

Title (de)

VERFAHREN ZUR HERSTELLUNG VON POLYETHYLENFASERN MIT ULTRAHOHEM MOLEKULARGEWICHT

Title (fr)

PROCÉDÉ DE PRÉPARATION POUR FIBRE EN POLYÉTHYLÈNE À POIDS MOLÉCULAIRE ULTRAÉLEVÉ

Publication

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Application

EP 11840013 A 20110128

Priority

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Abstract (en)

[origin: EP2639346A1] The invention discloses a preparation method with low energy consumption and low cost for high-strength and high-extension ultrahigh molecular weight polyethylene fiber. The method comprises two steps: firstly, preparing modified polyethylene master batch; and secondly, adding the prepared modified polyethylene master batch to a selected ultrahigh molecular weight polyethylene resin, uniformly mixing to prepare ultrahigh molecular weight polyethylene, and further performing melt spinning. The prepared ultrahigh molecular weight polyethylene fiber has fiber strength of 15CN/dtex-25CN/dtex and elongation at break of 5%-8%. The method disclosed by the invention has the advantages of short production flow, low energy consumption, environmentally friendly, low manufacturing cost, high standalone capacity and the like. The produced product can be widely used in the fields such as twist-knitting various ropes, braiding fishnets and weaving various industrial cloth, industrial belts and the like, and it can effectively retain high fiber strength while being used.

IPC 8 full level

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Citation (search report)

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