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(54) **POLYETHYLENE FIBER HAVING ULTRAHIGH ANTI-CUTTING PERFORMANCE AND ULTRAHIGH MOLECULAR WEIGHT AND PREPARATION METHOD THEREFOR**

(57) The present invention relates to an ultra-high molecular weight polyethylene fiber with ultra-high cut resistance, including: an ultra-high molecular weight polyethylene matrix and carbon fiber powder particles dispersed therein. The content of the carbon fiber powder particles is 0.25-10 wt%. The present invention further relates to a method for preparing the ultra-high molecular weight polyethylene fiber with the ultra-high cut resistance and a cut-resistant glove woven therefrom. The test proves that the glove woven from the ultra-high molecular weight polyethylene fiber with the ultra-high cut resist-

ance is soft and comfortable, and does not have prickling sensation. According to the test of the Standard EN388-2003, the level of the cut-resistant grade ranges from 4 to 5. Compared with the application of other existing inorganic high-hardness reinforcing materials, the production process of the ultra-high molecular weight polyethylene fiber with the ultra-high cut resistance of the present invention has relatively less abrasion on the equipment. Moreover, the knitted cut-resistant gloves have higher durability and the cut-resistant performance is maintained longer than other gloves.

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