

Title (en)
GLOSSY PILLING-RESISTANT ACRYLIC FIBER, METHOD FOR PRODUCING SAME, AND SPUN YARN AND KNITTED FABRIC INCLUDING SAID ACRYLIC FIBER

Title (de)
GLÄNZENDE ABRIEBFESTE ACRYLFASER, VERFAHREN ZUR HERSTELLUNG DAVON SOWIE SPINNGARN UND MASCHENWARE MIT BESAGTER ACRYLFASER

Title (fr)
FIBRE ACRYLIQUE BRILLANTE RÉSISTANT AU BOULOCHAGE, SON PROCÉDÉ DE PRODUCTION, ET FILÉ ET TRICOT COMPRENANT LADITE FIBRE ACRYLIQUE

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Application
EP 15837071 A 20150825

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Abstract (en)
[origin: EP3187629A1] The present invention provides: an acrylic fiber having a fineness of 0.5 to 3.5 dtex and having excellent gloss, pilling resistance, and texture; a method for producing said acrylic fiber; and a spun yarn and a knitted fabric containing said acrylic fiber. Provided is an acrylic fiber having a filament fineness of 0.5 to 3.5 dtex, wherein the product K of the value of knot strength (cN/dtex) and the value of knot elongation (%) is from 8 to 30 inclusive, and the number of recesses having a depth of 0.1 μ m or greater is 10 or fewer. In this method for producing said acrylic fiber, an acrylonitrile-based copolymer containing 92 to 96.8 mass% of an acrylonitrile unit, 2 to 6 mass% of a vinyl-based monomer unit, and 0.2 to 2.0 mass% of a sulfonic acid group-containing vinyl monomer unit is dissolved in an organic solvent, to prepare a spinning dope. A coagulated fiber bundle is formed by discharging the spinning dope from discharge holes into a coagulation bath having a solvent concentration of 40 to 60 mass% and a temperature of 35 to 50 °C. The coagulated fiber bundle is drawn in hot water at a draw ratio of 2 to 3.8 times, an oil agent is applied, the fiber bundle is dried, and then the fiber bundle is drawn under dry heat at a draw ratio of 1.2 to 3 times. The product S of said draw ratio in hot water and said draw ratio under dry heat is from 4 to 6 times. Further, the fiber bundle is subjected to a thermal relaxation treatment.

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Citation (search report)
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