~~FIBER FOR ARTIFICIAL HAIR, AND HAIR ACCESSORY FORMED FROM SAME~~

Technical Field

[0001]

The present invention relates to a fiber for artificial hair and a fiber bundle for artificial hair having an excellent styling property and a soft and smooth texture similar to those of human hair; a hair accessory and an artificial hair product formed therefrom; and a polyvinyl chloride-based resin fiber forming the fiber for artificial hair and the fiber bundle for artificial hair.

Background Art

[0002]

As a synthetic fiber for artificial hair which is commercially available, there are many materials such as polyvinyl chloride-based resin fibers, polyester-based resin fibers, and modacrylic resin fibers. These synthetic fibers each have superior properties derived from the material, and they have been used in a headdress product in a field in which they excel depending on the properties of each fiber. Recently, combined fibers are used to fabricate one headdress product, harmonizing and utilizing various excellent properties. The resulting commodities, which consequently have value relatively similar to those of human hair products, have been placed on the market. They show the following properties. For example, the polyvinyl chloride-based resin fiber has soft texture similar to that of human hair, can be easily processed into any style, and rarely gets tangled. The

CLAIMS:

1. A polyvinyl chloride-based resin fiber which has a shrinkage stress of 70 μN/dtex or less at 130°C.

2. The polyvinyl chloride-based resin fiber according to claim 1, wherein the shrinkage stress is 50 μN/dtex or less at 130°C.

3. The polyvinyl chloride-based resin fiber according to claim 2, wherein the shrinkage stress is 40 μN/dtex or less at 130°C.

4. The polyvinyl chloride-based resin fiber according to any one of claims 1 to 3, wherein the polyvinyl chloride-based resin fiber is a resin fiber including at least one resin selected from the group consisting of a homopolymer resin of vinyl chloride, a copolymer resin of vinyl chloride and a vinyl ester, a copolymer resin of vinyl chloride and an acrylic ester, a copolymer resin of vinyl chloride and an olefin, and a copolymer resin of a vinyl chloride-acrylonitrile.

5. The polyvinyl chloride-based resin fiber according to any one of claims 1 to 4, wherein the polyvinyl chloride-based resin fiber is a polyvinyl chloride based resin fiber for artificial hair.

6. A fiber bundle for artificial hair comprising 20 to 100% by weight of the polyvinyl chloride-based resin fiber according to any one of claims 1 to 5, and

0 to 80% by weight of a thermoplastic resin fiber having a composition including no polyvinyl chloride-based resin.

7. The fiber bundle for artificial hair according to claim 6, wherein the thermoplastic resin fiber has a Young's modulus of 4 to 9 GPa.

8. The fiber bundle for artificial hair according to claim 6 or 7, wherein the thermoplastic resin fiber has a shrinkage percentage of 10% or less at 130°C.

9. The fiber bundle for artificial hair according to any one of claims 6 to 8, wherein the polyvinyl chloride-based resin fiber has a shrinkage percentage at 130°C, which is not lower than the shrinkage percentage at 130°C of the thermoplastic resin fiber.

10. The fiber bundle for artificial hair according to claim 9, wherein a difference between the shrinkage percentage at 130°C of the polyvinyl chloride-based resin fiber and the shrinkage percentage at 130°C of the thermoplastic resin fiber is 6% or less.

11. The fiber bundle for artificial hair according to any one of claims 6 to 10, wherein the thermoplastic resin fiber is a resin fiber including at least one resin selected from the group consisting of an acrylonitrile-based resin, a modacrylic resin, a polyolefin-based resin, a polyester-based resin, a polyamide-based resin, a polyimide-based resin, a polyether-imide-based resin, a polyamide-imide-based resin, a polyoxymethylene-based resin, a

polyether-ketone-based resin, a polycarbonate-based resin, a polysulfone-based resin, a polyether-sulfone-based resin, a polyphenylene-ether-based resin, a polyphenylene-sulfide-based fiber, and a Teflon® resin.

12. The fiber bundle for artificial hair according to any one of claims 6 to 11, wherein the polyvinyl chloride-based resin fiber and the thermoplastic resin fiber includes an amino-modified silicone compound.

13. The fiber bundle for artificial hair according to any one of claims 6 to 12, wherein the polyvinyl chloride-based resin fiber includes a polyalkylene oxide-based compound having a weight average molecular weight of 2000 to 25000 in a content of 0.07 to 0.5 omf%.

14. The fiber bundle for artificial hair according to any one of claims 6 to 13, wherein the polyvinyl chloride-based resin fiber includes a silicone-based compound in a content of 0 to 0.5 omf%.

15. An artificial hair product obtained by processing the fiber bundle for artificial hair according to any one of claims 6 to 14.

16. The artificial hair product according to claim 15, wherein the process is performed at a temperature of 95 to 130°C.

A METHOD FOR PRODUCING THE POLYVINYL CHLORIDE-BASED RESIN FIBER

Technical Field

[0001]

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CLAIMS

1.

A method for producing a polyvinyl chloride-based resin fiber comprising steps of; performing melt-spinning to obtain unstretched yarns from a polyvinyl chloride-based resin, supporting a polyalkylene oxide-based compound having a weight average molecular weight of 2000 to 25000 on the unstretched yarns from 0.07 to 0.5 omf%, stretching the unstretched yarns which the polyalkylene oxide-based compound is supported on, and performing a relaxation treatment for 2 to 60 minutes at 120 to 145 ℃.

2.

The method for producing a polyvinyl chloride-based resin fiber according to claim 1,

wherein a relaxation rate in the relaxation treatment is 20 to 50%.

3.

The method for producing a polyvinyl chloride-based resin fiber according to claim 1 or 2,

wherein a heat-treatment temperature in the relaxation treatment is from 130 to 140 ℃.

4.

The method for producing a polyvinyl chloride-based resin fiber according to any one of claims 1 to 3,

wherein a relaxation speed in the relaxation treatment is set at a relaxation rate of 10%/minute or less.