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(54) **Artificial hair or doll's hair**

(57) Artificial hair or doll's hair which mainly consists of a synthetic support (2), preferably in the form of a monofilament, which is provided with a coating (3), characterized in that the coating (3) contains at least a polymer of a diisocyanate and a diol.

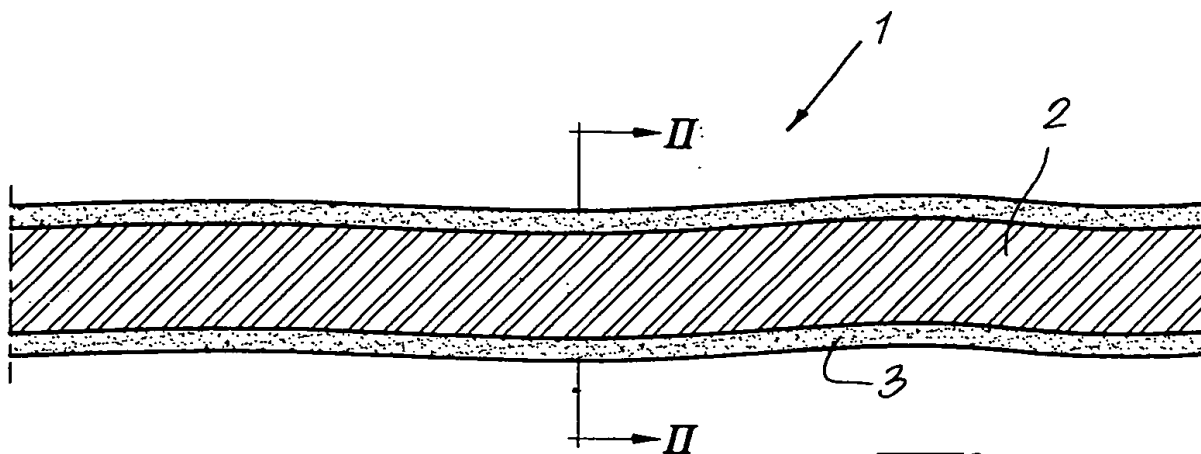


Fig. 1

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Description

[0001] The present invention concerns improved artificial hair or doll's hair.

[0002] It is known that artificial hair usually does not look like real hair and does not feel like real hair either, such that it does not make a natural impression, and a person wearing a wig made of such artificial hair often catches the eye.

[0003] Another disadvantage of the known artificial hair is that it is relatively liable to wear, both physically and chemically, as a result of which said artificial hair has a limited life compared to real hair.

[0004] The present invention aims to remedy the above-mentioned and other disadvantages by providing improved artificial hair or doll's hair which looks like real hair, also feels like real hair and moreover is relatively resistant to physical and chemical wear.

[0005] To this end, the present invention concerns improved artificial hair or doll's hair which mainly consists of a synthetic support, preferably in the form of a monofilament, which is provided with a coating containing at least a polymer of a diisocyanate and a diol.

[0006] The present invention also aims to provide a method for manufacturing improved artificial hair or doll's hair as described above, whereby a synthetic support, preferably in the form of a monofilament, is provided at least once with a coating containing at least a polymer of a diisocyanate and a diol.

[0007] In order to better explain the characteristics of the invention, the following preferred embodiments of improved artificial hair or doll's hair according to the invention are given as an example only with reference to the accompanying drawings, in which:

figure 1 represents a longitudinal section of an improved artificial hair or doll's hair according to the invention;

figure 2 is a cross section according to line II-II in figure 1 to a larger scale;

figures 3 and 4 represent variants of an improved artificial hair or doll's hair according to figure 2.

[0008] The improved artificial hair 1 or doll's hair according to the invention mainly consists of a synthetic support 2, preferably in the form of a monofilament having a round cross section, which is provided with a coating 3.

[0009] The above-mentioned synthetic support 2 is preferably made of a polyester, such as polyethylene terephthalate (PETP), or of a polyamide or what is called fancy acryl.

[0010] The above-mentioned coating 3 according to the invention is made on the basis of polyurethane, a polymer on the basis of a diisocyanate and a diol.

[0011] The polyurethane may hereby be a so-called 1-component polyurethane or a 2-component polyurethane, in particular a polyurethane which consists of two different polymers which are mutually coupled so as to form a cross-linked structure.

[0012] In both cases, the polyurethane is preferably hydrophobic, for example as it is formed on the basis of an aliphatic diisocyanate.

[0013] In the case of a 2-component polyurethane, both components are preferably of the type which can be cross-linked by means of an isocyanate and/or a resin, for example melamine resin.

[0014] Figure 3 represents a variant of an improved artificial hair 1 or doll's hair according to the invention, whereby the cross section has an oval shape.

[0015] Figure 4 represents another embodiment of an improved artificial hair or doll's hair according to the invention, whereby the cross section has a so-called "double round glass shape".

[0016] It is clear that the cross section of an improved artificial hair 1 or doll's hair according to the invention is not limited to the shapes represented in the figures.

[0017] The thickness of the artificial hair 1 or doll's hair is preferably situated between one tenth and four hundredths of a millimeter.

[0018] It should be noted that, in the coating 3, small aerogel particles are preferably distributed which consist of a silicon dioxide.

[0019] The aerogel particles used are, for example, commercially available under the trade name Nanogel.

[0020] The aerogel particles are advantageous in that they give the artificial hair 1 or doll's hair a permanent matt shine, which offers a solution to the use of a synthetic support 2 made of polyester or polyamide or fancy acryl, which as is known looks very gleamy.

[0021] Another advantage of the use of the above-mentioned aerogel particles is that they are non-flammable and water-repellent, which is advantageous in case the synthetic support 2 is made of polyamide which, as is known, readily expands as a result of water absorption.

[0022] The present invention also concerns a method for manufacturing improved artificial hair 1 or doll's hair according to the invention, whereby a synthetic support 2 in the form of a monofilament is provided with a liquid coating on the basis of chemical or viscose polyurethane at least once and preferably several times.

[0023] The coating is done by drawing the synthetic support 2 for example through a bath of the coating material.

[0024] After the coating, a drying time is preferably applied in conformity with the drying time required for the type of polyurethane used.

[0025] It is clear that the material out of which the synthetic support 2 can be made is not restricted to the above-mentioned polyamide or fancy acryl, but that also other materials can be applied while still remaining within the scope of the invention.

[0026] Examples of materials out of which the synthetic support 2 can be made are among others: polyamide 6, polyamide 6.6, polyamide 11, polyamide 12, fancy acryl, polyacetate (POM), polyvinylidene fluoride (PVDF) and/or a combination of one or several of the above-mentioned substances.

[0027] The present invention is by no means limited to the embodiment given as an example and represented in the accompanying drawings; on the contrary, such improved artificial hair or doll's hair according to the invention can be made in all sorts of shapes and dimensions while still remaining within the scope of the invention.

Claims

1. Improved artificial hair or doll's hair which mainly consists of a synthetic support (2), preferably in the form of a monofilament, which is provided with a coating (3), **characterized in that** the coating (3) contains at least a polymer of a diisocyanate and a diol.
2. Improved artificial hair or doll's hair according to claim 1, **characterized in that** the diisocyanate is an aliphatic diisocyanate.
3. Improved artificial hair or doll's hair according to claims 1 or 2, **characterized in that** the coating (2) mainly consists of a polyurethane.
4. Improved artificial hair or doll's hair according to claim 3, **characterized in that** the coating (3) mainly consists of a 1- or 2-component polyurethane.
5. Improved artificial hair or doll's hair according to claim 4, **characterized in that** the above-mentioned polyurethane is a chemical or viscose polyurethane.
6. Improved artificial hair or doll's hair according to claim 1, **characterized in that** the synthetic support (2) is made of a polyester.
7. Improved artificial hair or doll's hair according to claim 6, **characterized in that** the above-mentioned synthetic support (2) consists of polyethylene terephthalate (PETP).
8. Improved artificial hair or doll's hair according to claim 1, **characterized in that** the above-mentioned synthetic support (2) consists of a polyamide.
9. Improved artificial hair or doll's hair according to claim 1, **characterized in that** the above-mentioned synthetic support (2) consists of fancy acryl.
10. Improved artificial hair or doll's hair according to claim 1, **characterized in that** the thickness of the artificial hair (1) is situated between one tenth and four hundredths of a millimeter.
11. Improved artificial hair or doll's hair according to claim 1, **characterized in that** aerogel particles are distributed in the coating.
12. Method for manufacturing improved artificial hair or doll's hair according to one or several of the preceding claims, **characterized in that** a synthetic support (2), preferably in the form of a monofilament, is provided at least once with a coating (3) which contains at least a polymer of a diisocyanate and a diol.
13. Method according to claim 12, **characterized in that** the synthetic support (2) is coated several times with a coating (3) which contains at least a polymer of a diisocyanate and a diol.
14. Method according to claim 12, **characterized in that** aerogel particles are distributed in the coating (3).

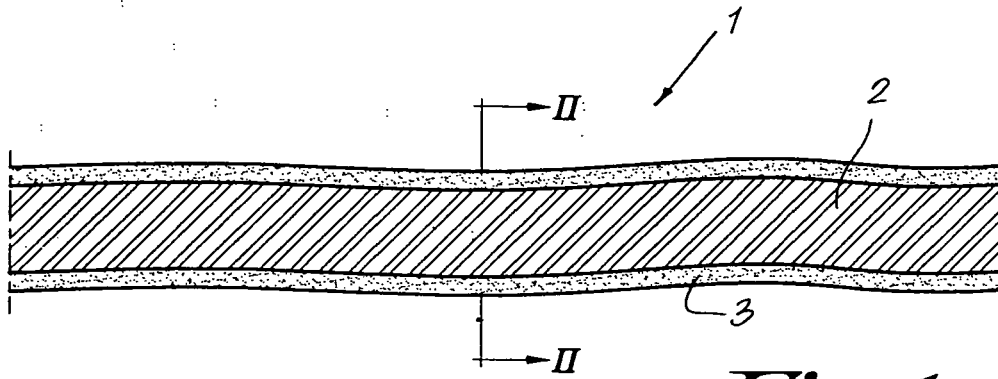


Fig. 1

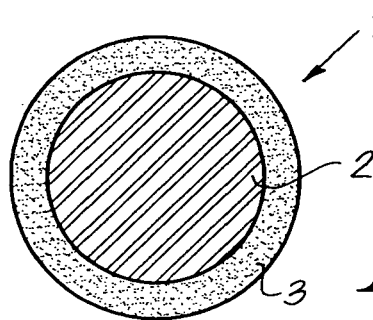


Fig. 2

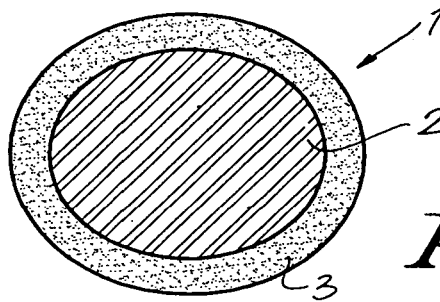


Fig. 3

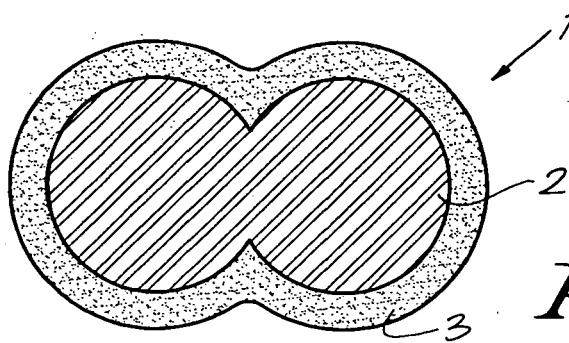


Fig. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 06 07 5353

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Place of search The Hague		Date of completion of the search 12 June 2006	Examiner Fiocco, M
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EUROPEAN SEARCH REPORT

Application Number
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