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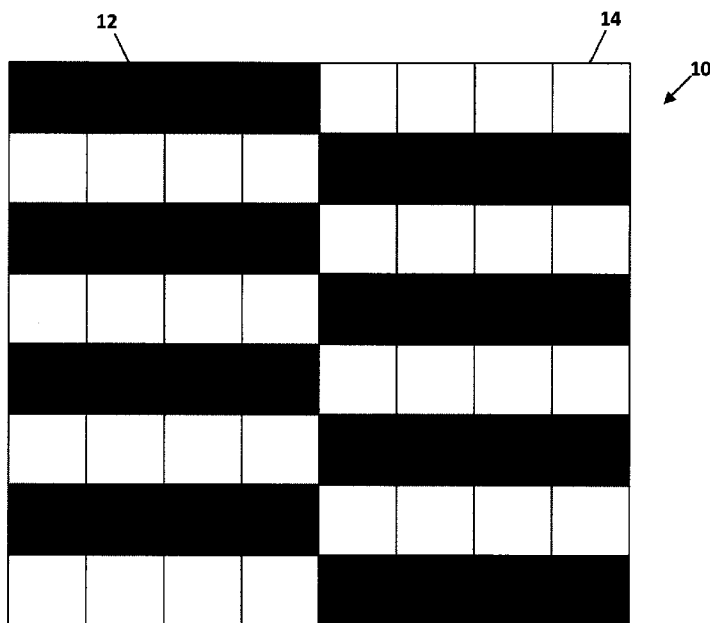
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(54) Title: WOVEN FABRIC



(57) Abrégé/Abstract:

A woven fabric for seats is made of warps and wefts woven into a four up four down pattern, wherein the warps density is 33.8 strips per unit length and the wefts density is 7.1 strips per unit length. The warps and wefts are both made of polypropylene.

ABSTRACT

A woven fabric for seats is made of warps and wefts woven into a four up four down pattern, wherein the warps density is 33.8 strips per unit length and the wefts density is 7.1 strips per unit length. The warps and wefts are both made of polypropylene.

WOVEN FABRIC

FIELD

[0001] This invention relates to the field of fabrics. More particularly, this invention relates to a woven fabric for seats, such as seats for furniture.

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BACKGROUND

[0002] At present, fabrics used in automobile seats, furniture seats and so on are mostly linen fabrics or cotton-linen fabrics. As people sit down on, get up from, and generally move around on a seat during daily use, it is inevitable that there is friction between the fabric on the surface of the seat and people's clothing. Due to such friction, typical seat fabrics made of linen or cotton are easily deformed or even torn. When the seat fabric is exposed to such wear over time, a fuzz or fluff develops that affects the aesthetics of the fabric.

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[0003] Therefore, a high-strength, tear-resistant, and fuzz-resistant fabric is needed for seats.

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SUMMARY

[0004] Embodiments described herein provide a fabric for furniture applications, such as chair seats or bench seats, with the characteristics of high strength, tear resistance, prolonged service life, and reduced deformation and fuzzing after prolonged use.

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[0005] To achieve the above-listed advantages, the technical solution adopted by the present disclosure provides a fabric made of warps and wefts that are woven into a four up four down pattern, wherein the warps density is 33.8 strips/cm and the wefts density is 7.1 strips/cm.

[0006] As a further improvement of the above technical solution, the surface density of the fabric is 200 grams per square meter.

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[0007] As a further improvement of the above technical solution, the warps and the wefts are both made of 100% polypropylene.

[0008] Compared to known fabrics constructed from yarns of similar quality, the fabric constructed according to the present disclosure has the advantages of higher abrasion
5 resistance, higher tear resistance, and greater firmness.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] Other embodiments of the invention will become apparent by reference to the detailed description in conjunction with the figures, wherein elements are not to scale so as to more clearly show the details, wherein like reference numbers indicate like elements
10 throughout the several views, and wherein:

[0010] FIG. 1 depicts a woven fabric according to an embodiment of the invention; and

[0011] FIG. 2 depicts a schematic diagram of the structure of a woven fabric according to an embodiment of the invention.

DETAILED DESCRIPTION

[0012] The following is a detailed description of the best mode or modes of the invention
15 presently contemplated. Such description is not intended to be understood in a limiting sense, but to be an example of the invention presented solely for illustration thereof, and by reference to which one skilled in the art may be advised of the advantages and construction of the invention. Reference will now be made in detail to a preferred
20 implementation of the present invention as illustrated in the accompanying drawing. Wherever possible, the same reference numbers will be used throughout the drawings to refer to the same or like parts.

[0013] As the terms are used herein, “warp” and “weft” are the two basic components used in weaving to turn thread or yarn into fabric. For example, lengthwise or longitudinal warp
25 threads may be held stationary in tension on a frame or loom while the transverse weft thread is drawn through and inserted over-and-under the warp threads.

[0014] FIGS. 1 and 2 depict an embodiment of a woven fabric 10 for furniture applications, such as chair seats. The fabric is made of a woven pattern of warps 12 and wefts 14. In an exemplary embodiment, the warps 12 and the wefts 14 are woven into a “4 up 4 down” pattern, such as in black and gray (with warps 12 in black and wefts 14 in gray, or vice-verse), or in other different color combinations. The warps density is preferably 33.8 strips/cm and the wefts density is preferably 7.1 strips/cm. The surface density of a preferred embodiment of the fabric is 200 grams per square meter.

[0015] The warps 12 and the wefts 14 are preferably both made of 100% polypropylene yarn. This composition provides high abrasion resistance, high tear resistance, and high firmness. In a preferred embodiment, the warp yarn is 150 denier drawn textured yarn (DTY), and the weft yarn comprises 6.5N Fancy Yarn and 5.8N Poly Snow.

[0016] The use of any and all examples, or exemplary language (e.g., “such as”) provided herein, is intended merely to better illuminate embodiments of the present disclosure and does not pose a limitation on the scope of the present disclosure unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed element as essential to the practice of the present disclosure.

[0017] The foregoing description of preferred embodiments for this invention have been presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise form disclosed. Obvious modifications or variations are possible in light of the above teachings. The embodiments are chosen and described in an effort to provide the best illustrations of the principles of the invention and its practical application, and to thereby enable one of ordinary skill in the art to utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. All such modifications and variations are within the scope of the invention as determined by the appended claims when interpreted in accordance with the breadth to which they are fairly, legally, and equitably entitled.

CLAIMS

What is claimed is:

1. A woven fabric for seats comprising:

warps comprising a polypropylene drawn textured yarn (DTY) having a denier of 100 or greater and woven at a density of 33.8 strips per centimeter; and

wefts comprising a polypropylene yarn having a yarn count of 6.5Nm and woven at a density of 7.1 strips per centimeter.
2. The woven fabric for seats according to claim 1, wherein a surface density of the woven fabric is 200 grams per square meter.
3. The woven fabric for seats according to claim 1, wherein the warps and wefts are woven into a four up four down pattern.
4. The woven fabric for seats according to claim 1, wherein the wefts further comprise a polypropylene yarn having a yarn count of 5.8Nm.
5. The woven fabric for seats according to claim 1, wherein the warps have a denier of 150.

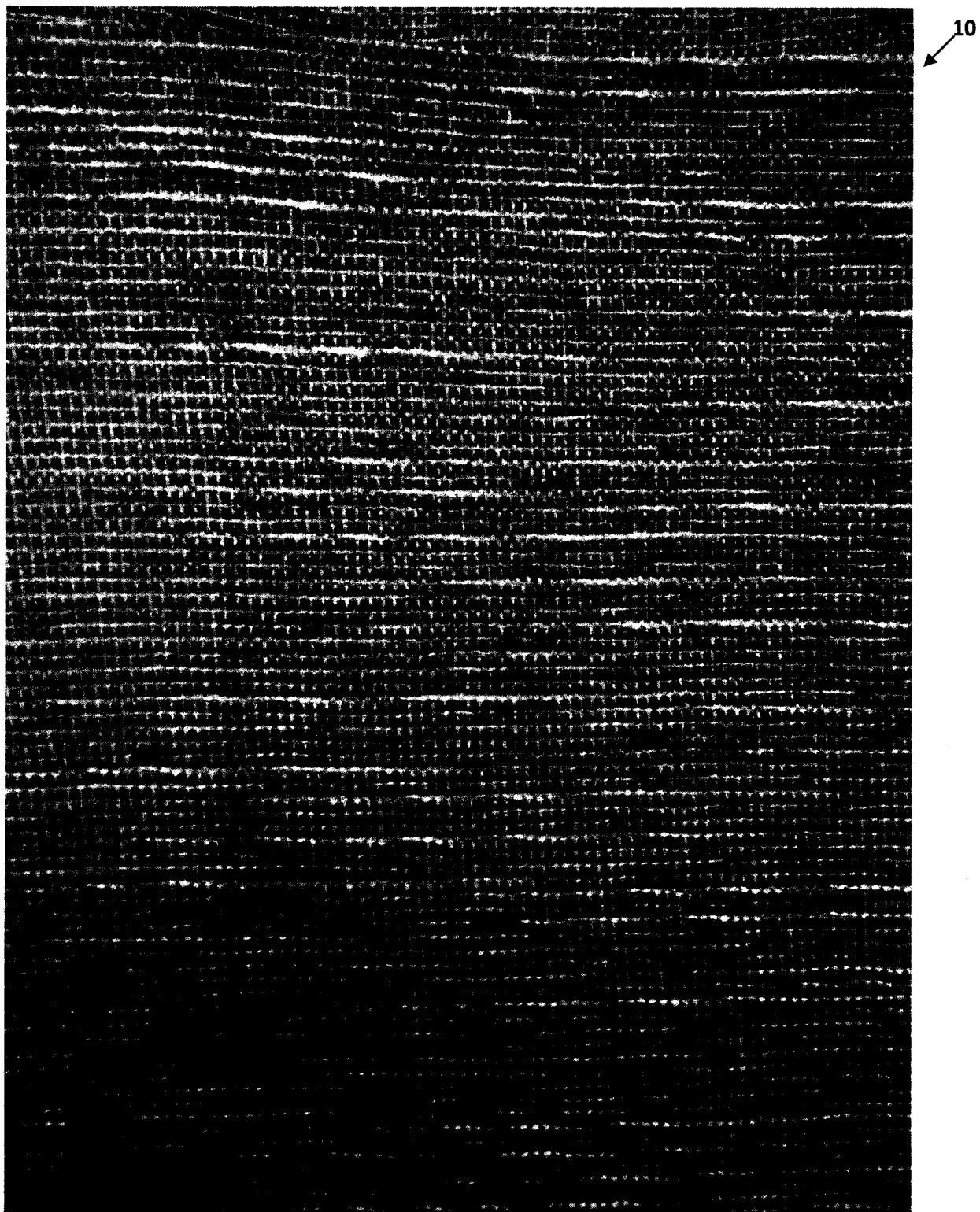


FIG. 1

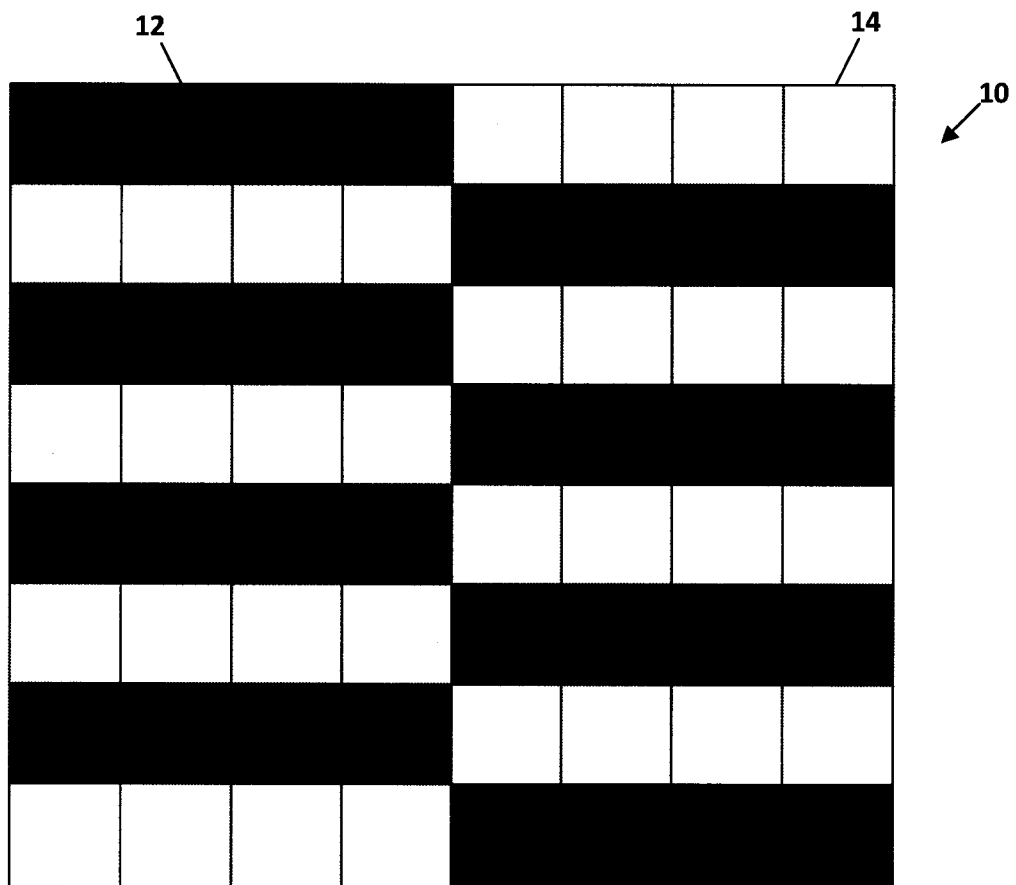


FIG. 2

