excellent moldability at the time of construction.

[0005]

In the related art, in order to improve the balance between breathability and waterproofness, a house wrapping material which is a laminate of a polyester-based nonwoven fabric having a fiber diameter of 3 to 28 microns and a basis weight of 5 to 50 g/m^2, and a film having a thickness of 7 to 60 microns made of block copolymerized polyester having a hard segment and a soft segment superposed on the nonwoven fabric, has been proposed (see Patent Literature 1).

CITATION LIST

PATENT LITERATURE

[0006]

Patent Literature 1: Japanese Patent No. 3656837

SUMMARY OF INVENTION

TECHNICAL PROBLEM

[0007]

However, since the house wrapping material in the related art is a laminate of a nonwoven fabric and a film, there is a problem that the sheet is hard and has poor moldability. The hardness and the poor moldability of the sheet are due to the film, and reducing a proportion of the film to be bonded is effective, but the reduction of the film proportion is restricted in view of waterproofness.

As described above, a nonwoven fabric having both waterproofness and softness and excellent in moldability has been sought in the related art.

[0008]

Therefore, in view of the above problems, an object of the present invention is, as compared with the related art, to provide a spun-bonded nonwoven fabric composed of fibers made of polyolefin, having both waterproofness and softness and excellent in workability.

SOLUTION TO PROBLEM

[0009]

The spun-bonded nonwoven fabric of the present invention is composed of polyolefin fibers, in which a surface of the nonwoven fabric has an average pore diameter of 0.1 to 25 μm, a maximum pore diameter of 50 μm or less, and the spun-bonded nonwoven fabric has water

pressure resistance per unit basis weight of 7 mm $H_2O/(g/m^2)$ or more.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, the polyolefin fiber constituting the nonwoven fabric has an average single fiber diameter of 6.5 to 11.9 μm.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, a kinetic friction coefficient between the polyolefin fibers constituting the nonwoven fabric is 0.01 to 0.3.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, the fiber constituting the nonwoven fabric has an MFR of 155 to 850 g/10 min.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, the fiber constituting the nonwoven fabric includes a fatty acid amide compound having 23 or more and 50 or less carbon atoms.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, an addition amount of the fatty acid amide compound is 0.01% to 5.0% by mass.

According to a preferred embodiment of the spun-bonded nonwoven fabric of the invention, the fatty acid amide compound is ethylene bisstearic acid amide.

ADVANTAGEOUS EFFECTS OF INVENTION

[0010]

According to the present invention, a spun-bonded nonwoven fabric that is composed of polyolefin fibers with good spinnability and high productivity despite of their small single fiber diameter, has uniform texture, a smooth surface and excellent softness, a small pore diameter size of the nonwoven fabric, and high water resistance, can be obtained. Based on these characteristics, the spun-bonded nonwoven fabric of the present invention can be suitably utilized as a breathable-waterproof sheet application in particular.

DESCRIPTION OF EMBODIMENTS

[0011]

The spun-bonded nonwoven fabric of the present invention is a spun-bonded nonwoven fabric composed of polyolefin fibers, in which the nonwoven fabric has an average pore diameter size of 0.1 to 25 μm, a maximum pore diameter size of 50 μm or less, and the nonwoven fabric has a water pressure resistance per unit basis weight of 7 mm $H_2O/(g/m^2)$ or more.

[0012]

CLAIMS

1. A spun-bonded nonwoven fabric composed of polyolefin fibers, wherein a surface of the nonwoven fabric has an average pore diameter of 0.1 to 25 μm, and a maximum pore diameter of 50 μm or less, and the nonwoven fabric has water pressure resistance per unit basis weight of 7 mm $H_2O/(g/m^2)$ or more.

2. The spun-bonded nonwoven fabric according to claim 1, wherein the fiber constituting the nonwoven fabric has an average single fiber diameter of 6.5 to 11.9 μm.

3. The spun-bonded nonwoven fabric according to claim 1 or 2, wherein a kinetic friction coefficient between the fibers constituting the nonwoven fabric is 0.01 to 0.3.

4. The spun-bonded nonwoven fabric according to any one of claims 1 to 3, wherein the fiber constituting the nonwoven fabric has an MFR of 155 to 850 g/10 min.

5. The spun-bonded nonwoven fabric according to any one of claims 1 to 4, wherein the fiber constituting the nonwoven fabric comprises a fatty acid amide compound having 23 or more and 50 or less carbon atoms.

6. The spun-bonded nonwoven fabric according to claim 5, wherein an addition amount of the fatty acid amide compound is 0.01% to 5.0 % by mass.

7. The spun-bonded nonwoven fabric according to claim 5 or 6, wherein the fatty acid amide compound is ethylene bisstearic acid amide.