[0006]

Patent Literature 1: JP-A-2006-299424

Patent Literature 2: JP-A-2003-336156

SUMMARY

TECHNICAL PROBLEM

[0007]

However, in the technique disclosed in Patent Literature 1, there is a problem that when a resin in which 45 mass % of polyethylene glycol has been copolymerized with polytetramethylene terephthalate is used as the copolymerized polyester based resin as shown in the description thereof by way of example, water absorbency of fibers containing the resin is so high that a sticky sense of touch is provided to a nonwoven fabric formed of the fibers, thereby resulting in poor texture.

[0008]

On the other hand, in the technique disclosed in Patent Literature 2, there is a problem that since a rigid polyester resin is used in a core portion, the bending rigidity of fibers is so high that the softness deteriorates in a spun-bonded nonwoven fabric formed of the fibers.

[0009]

Therefore, in consideration of the aforementioned problems, an object of the present disclosure is to provide a spun-bonded nonwoven fabric that is soft and excellent in sense of touch.

SOLUTION TO PROBLEM

[0010]

The present inventors made intensive studies in order to attain the foregoing objects. As a result, the present inventors found that softness and a sense of touch can be improved on a large scale in a copolymerized polyester based resin in which a specific amount of polyethylene glycol has been copolymerized.

[0011]

The present disclosure was completed based on the aforementioned findings. In the present disclosure, the following inventive configurations are provided.

[0012]

A spun-bonded nonwoven fabric of the present disclosure is a spun-bonded nonwoven fabric including a monocomponent fiber including a copolymerized polyester based resin in which 5 weight % or higher and 40 weight % or lower of a polyethylene glycol is copolymerized with a polyester based resin, in which the spun-bonded nonwoven fabric has a ΔMR of 0.5 % or higher and 15% or lower.

[0012a]

In an aspect, there is provided a spun-bonded nonwoven fabric comprising a monocomponent fiber comprising a copolymerized polyester based resin in which 5 weight % or higher and 40 weight % or lower of a polyethylene glycol is copolymerized with a polyester based resin,

wherein the spun-bonded nonwoven fabric has a ΔMR of 0.5 % or higher and 15% or lower.

According to a preferred example of the present disclosure, the polyester based resin is a polyethylene terephthalate.

ADVANTAGEOUS EFFECTS

[0013]

In the present disclosure, it is possible to obtain a spun-bonded nonwoven fabric capable of further improving softness, having a less sticky, smooth and excellent sense of touch. Further, processability into a sheet is excellent because the strength of fibers is enhanced, thereby improving productivity.

DESCRIPTION OF EMBODIMENTS

[0014]

A nonwoven fabric of the present invention is a spun-bonded nonwoven fabric including a monocomponent fiber including a copolymerized polyester based resin in which 5 weight % or higher and 40 weight % or lower of a polyethylene glycol is copolymerized with a polyester based resin. The spun-bonded nonwoven fabric is characterized in that a ΔMR of the spun-bonded nonwoven fabric is 0.5 % or higher and 15% or lower.

[0015]

Examples of the polyester based resin that can be used in the present invention include polyethylene terephthalate, polypropylene terephthalate, polybutylene terephthalate, and polylactic acid. Particularly, for a preferred embodiment, polyethylene terephthalate is

used. When polyethylene terephthalate is used, the resin can be made into fibers that have excellent softness and an excellent sense of touch. In addition, since the resin can be drawn at a high spinning speed, the fibers tend to develop orientation crystallization and also have mechanical strength.

[0016]

The number-average molecular weight of the polyethylene glycol contained in the copolymerized polyester based resin used in the present invention is preferably 4,000 or more