DESCRIPTION

Title of the Invention: STRETCHED FILM, LAMINATE, PACKAGING MATERIAL, PACKAGE AND METHOD FOR PRODUCING STRETCHED FILM

Technical Field

[0001]

The present invention relates to a stretched film, a laminate, a packaging material, a package, and a method for producing a stretched film.

Background Art

[0002]

In recent years, laws have been enacted concerning the disposal of a variety of plastics against the backdrop of environmental issues, there has been an increasing need for the recycling of package materials, and a variety of studies have been underway regarding recyclable packaging materials. Among them, for example, mono-materials each composed of a single type of material (for example, ALL-PE) are attracting attention as recyclable packaging materials.

[0003]

Films composed of a variety of resins are used as base materials in ordinary packaging materials, and examples of

A packaging material of the present invention includes the stretched film of the present invention or the laminate of the present invention. Between them, for example, the packaging material composed of the laminate of the present invention is suitable in an application of packaging a variety of products and parts. Such a packaging material can be produced by, for example, superposing the laminates of the present invention so that end portions there come into contact with each other at least partially and integrating the end portions by heat fusion.

The packaging material of the present invention is used in a wide range of applications and is used in, for example, packaging a variety of products and parts such as daily necessities, machine parts, electrical parts, food, and beverages.

When the stretched film of the present invention having excellent lust is used in the outermost layer of the packaging material of the present invention, the commercial value becomes higher.

[Package]

A package obtained by packaging a variety of products, parts, food, or beverages with a packaging material including the stretched film or laminate of the present invention can be made into merchandise having an excellent appearance.

CLAIMS

[Claim 1]

A stretched film comprising:

an ethylene-based polymer satisfying the following requirement (a1) and requirement (a2); and

100 to 2500 ppm of a nucleating agent relative to 100 parts by mass of the ethylene-based polymer:

requirement (a1): a melt flow rate (MFR) measured at 190°C and at a load of 2.16 kg is 0.2 to 10 g/10 min, and

requirement (a2): a density is 940 to 970 kg/m^3.

[Claim 2]

The stretched film according to Claim 1, wherein a stretch ratio is twice or more and less than six times.

[Claim 3]

The stretched film according to Claim 1, wherein the ethylene-based polymer has a Mw/Mn of 2 to 15.

[Claim 4]

The stretched film according to Claim 1, wherein the stretched film has gloss of 30% or more, an elastic modulus (MD direction) of 3000 MPa or more, and a tear strength (MD direction) of 8 N/cm or more.

[Claim 5]

A laminate comprising:

the stretched film according to Claim 1.

[Claim 6]

The laminate according to Claim 5, wherein the stretched film according to Claim 1 is positioned in at least one outermost layer in the laminate.

[Claim 7]

The laminate according to Claim 6, wherein the stretched film according to Claim 1 is positioned in both outermost layers of the laminate.

[Claim 8]

A packaging material comprising:

the stretched film according to Claim 1 or the laminate according to Claim 5.

[Claim 9]

A package being packaged with a packaging material including the stretched film according to Claim 1 or the laminate according to Claim 5.

[Claim 10]

A method for producing the stretched film according to any one of Claims 1 to 4, the method comprising:

a step of producing a film containing an ethylene-based polymer satisfying the following requirement (a1) and requirement (a2) and 100 to 2500 ppm of a nucleating agent relative to 100 parts by mass of the ethylene-based polymer by melt extrusion forming; and

a step of stretching the film:

(a1) a melt flow rate (MFR) measured at 190°C and at a load of 2.16 kg is 0.2 to 10 g/10 min, and

(a2) a density is 940 to 970 kg/m^3.