

[DESCRIPTION]

[TITLE OF INVENTION]

POLYETHYLENE-BASED RESIN COMPOSITION AND POLYETHYLENE-BASED
RESIN PACKAGING MATERIAL

5 [Technical Field]

[0001]

The present invention relates to a polyethylene-based resin composition and a polyethylene-based resin packaging material.

[Background Art]

10 [0002]

A polyethylene-based resin packaging material has been used in many applications including garbage bags, shopping bags, and fashion bags. In recent years, with global warming, there is a strong demand to reduce the amount of carbon dioxide generated, and it is important to suppress the amount of resin used. As a method for reducing the amount of resin used, a method of adding an inorganic compound to the resin while ensuring moldability is known. Patent Documents 1 and 2 disclose adding calcium carbonate to the resin.

[Citation List]

[Patent Documents]

20 [0003]

[Patent Document 1]

Japanese Patent No. 3366942

[Patent Document 2]

Japanese Unexamined Patent Application, First Publication No. 2018-21121

25 [Summary of Invention]

[Technical Problem]

[0004]

However, since the calcium carbonate is blended as in Patent Documents 1 and 2, it is difficult to obtain a film having properties required for packaging materials, such as film strength, elongation, sealing strength, and impact strength.

[0005]

An object of the present invention is to provide a polyethylene-based resin composition from which a film with favorable film strength, elongation, sealing strength, and impact strength can be produced even in a case where an inorganic compound is added; and a polyethylene-based resin packaging material formed of the polyethylene-based resin composition.

[Solution to Problem]

[0006]

The present invention includes the following aspects of [1] to [5].

[1] The polyethylene-based resin composition contains an inorganic compound and a resin component, in which the resin component includes an ethylene- α -olefin copolymer A which is obtained by copolymerizing ethylene and an α -olefin having 6 to 8 carbon atoms, in which a melt flow rate is 0.8 g/10 min or more and 4.0 g/10 min or less, and includes either or both of high-density polyethylene and an ethylene- α -olefin copolymer B which is obtained by copolymerizing ethylene and an α -olefin having 4 carbon atoms, a content of the inorganic compound is 30% by mass or more and 65% by mass or less with respect to a total mass of the resin composition, and a content of the ethylene- α -olefin copolymer A is 50% by mass or more and 95% by mass or less with respect to a total mass of the resin component.

[2] The polyethylene-based resin composition according to [1], in which a

content of the high-density polyethylene is 5% by mass or more and 20% by mass or less with respect to the total mass of the resin component.

[3] The polyethylene-based resin composition according to [1] or [2], in which the inorganic compound is calcium carbonate.

5 [4] A polyethylene-based resin packaging material formed from the polyethylene-based resin composition according to any one of [1] to [3].

[5] The polyethylene-based resin packaging material according to [4], in which the polyethylene-based resin packaging material is for a garbage bag, a shopping bag, a fashion bag, a storage bag, or a packing bag.

10 [Advantageous Effects of Invention]
[0007]

According to the present invention, it is possible to provide a polyethylene-based resin composition from which a film with favorable film strength, elongation, sealing strength, and impact strength can be produced even in a case where an inorganic
15 compound is added; and a polyethylene-based resin packaging material formed of the polyethylene-based resin composition.

[Description of Embodiments]
[0008]

[Polyethylene-based resin composition]

20 The polyethylene-based resin composition (hereinafter, referred to as “PE-based resin composition”) according to the embodiment of the present invention is a resin composition containing an inorganic compound and a resin component.

[0009]

(Inorganic compound)

25 The inorganic compound is not particularly limited, and calcium carbonate,

titanium oxide, silica, clay, talc, kaolin, and aluminum hydroxide are exemplary examples. Among these, calcium carbonate is preferable. The inorganic compound may be used alone, or in combination of two or more kinds thereof.

[0010]

5 The calcium carbonate may be so-called heavy calcium carbonate obtained by mechanically pulverizing limestone, or so-called precipitated calcium carbonate obtained by a carbonation method. The calcium carbonate may or may not be surface-treated. The calcium carbonate may be used alone, or in combination of two or more kinds thereof.

10 [0011]

 An average particle size of the calcium carbonate is preferably 5.0 μm or less, and more preferably 3.0 μm or less. In a case where the average particle size of the calcium carbonate is equal to or less than the upper limit value of the above-described range, excellent moldability can be ensured, and defects such as aggregation, holes

15 caused by the size of the particles themselves, and poor appearance are less likely to occur during film molding. The lower limit of the average particle size of the calcium carbonate is preferably 0.1 μm . The average particle size of the calcium carbonate is preferably 0.1 μm or more and 5.0 μm or less. The average particle size of the calcium carbonate is measured by an air permeation method.

20 [0012]

 A top-cut particle size of the calcium carbonate is preferably 15 μm or less, and more preferably 10 μm or less. The top-cut particle size is measured with an X-ray transmission particle size distribution analyzer.

 A 45 μm -sieve residue of the calcium carbonate is preferably 0.01% by mass or
25 less. The 45 μm -sieve residue is measured using a JIS standard sieve.

[0013]

(Resin component)

The resin component includes an ethylene- α -olefin copolymer A (hereinafter, also referred to as “copolymer A”), and includes either or both of high-density

5 polyethylene (hereinafter, also referred to as “HDPE”) and an ethylene- α -olefin copolymer B (hereinafter, also referred to as “copolymer B”).

[0014]

The copolymer A is an ethylene- α -olefin copolymer which is obtained by copolymerizing ethylene and an α -olefin having 6 to 8 carbon atoms, in which a melt
10 flow rate is 0.8 g/10 min or more and 4.0 g/10 min or less. The HDPE is polyethylene having a density of 0.942 or more and 0.970 or less. The copolymer B is an ethylene- α -olefin copolymer which is obtained by copolymerizing ethylene and an α -olefin having 4 carbon atoms. A combination of selecting the copolymer A, and HDPE and/or the copolymer B may be a combination of the copolymer A and HDPE, a combination of the
15 copolymer A and the copolymer B, or a combination of the copolymer A, HDPE, and the copolymer B.

[0015]

The copolymer A is a copolymer obtained by a copolymerization using ethylene and an α -olefin having 6 to 8 carbon atoms, and is preferably linear low-density
20 polyethylene (LLDPE) having a density of 0.910 or more and 0.925 or less. As the α -olefin used in the copolymer A, specifically, 1-hexene and 1-octene are exemplary examples. The α -olefin used in the copolymer A may be of one type, or two or more types.

[0016]

25 The MFR of the copolymer A is 0.8 g/10 min or more and 4.0 g/10 min or less.

In a case where the MFR of the copolymer A is equal to or more than the above-described lower limit value, excellent moldability can be ensured even at a low molding temperature, so that deterioration of the copolymer A can be suppressed. In a case where the MFR of the copolymer A is equal to or less than the above-described upper
5 limit value, melt tension is not too low, so that molding of the film is easier. The lower limit of the MFR of the copolymer A is preferably 0.9 g/10 min or more, and more preferably 1.0 g/10 min or more. The upper limit of the MFR of the copolymer A is preferably 2.5 g/10 min or less, more preferably 2.0 g/10 min or less, and still more preferably 1.5 g/10 min or less.

10 The MFR is a value obtained by applying a load of 2.16 kg to a resin (polymer) heated to 190°C and measuring the amount of resin flowing out from an orifice with a diameter of 2.09 mm in 10 min.

[0017]

A melting point of the copolymer A is preferably 90°C or higher and 140°C or
15 lower, and more preferably 100°C or higher and 125°C or lower. In a case where the melting point of the copolymer A is equal to or more than the lower limit value of the above-described range, the sealing shape of heat-sealed bag is good. In a case where the melting point of the copolymer A is equal to or less than the upper limit value of the above-described range, the heat-sealing time can be shortened, and bag-making speed
20 (production speed) is improved.

The melting point is a temperature corresponding to a melting peak measured by a differential scanning calorimetry (DSC) method.

[0018]

As the copolymer A, among LLDPE in which the number of carbon atoms in α -
25 olefin is 6 (C6-LLDPE) and LLDPE in which the number of carbon atoms in α -olefin is 8

(C8-LLDPE), copolymers having an MFR satisfying the above-described range are exemplary examples.

The copolymer A contained in the PE-based resin composition may be of one type, or two or more types.

5 [0019]

A method for producing the copolymer A is not particularly limited, and a polymerization using a Ziegler-type catalyst mainly composed of a transition metal such as titanium, a polymerization using a Phillips-type catalyst based on a chromium-based catalyst, and a polymerization using a Kaminsky-type catalyst based on a metallocene-based catalyst are exemplary examples. As the polymerization method, any of a solution polymerization method, a slurry polymerization method, a gas phase polymerization method, or a high-pressure ion polymerization method may be used. In addition, the polymerization may be a one-stage polymerization or a multi-stage polymerization of two or more stages.

15 [0020]

The copolymer B is a copolymer obtained by a copolymerization using ethylene and an α -olefin having 4 carbon atoms, and is preferably linear low-density polyethylene (LLDPE) having a density of 0.910 or more and 0.925 or less. As the α -olefin used in the copolymer B, specifically, 1-butene is an exemplary example.

20 A method for producing the copolymer B is not particularly limited, and for example, the same method as mentioned for producing the copolymer B is an exemplary example.

[0021]

The resin component contained in the PE-based resin composition according to
25 the embodiment of the present invention may be a component consisting of only the

copolymer A and HDPE, a component consisting of the copolymer A and the copolymer B, or a component consisting of only the copolymer A, HDPE, and the copolymer B.

The resin component may contain a resin component other than the copolymer A, HDPE, and the copolymer B as long as the effect of the present invention is not impaired.

5 Other resin components are not particularly limited, and for example, polyethylene other than the copolymer A, HDPE, and the copolymer B, an ethylene-vinyl acetate resin (EVA), an ethylene-vinyl alcohol copolymer (EVOH), and an ethylene-propylene copolymer are exemplary examples. The other resin components contained in the PE-based resin composition may be of one type, or two or more types.

10 [0022]

(Additive)

The PE-based resin composition according to the embodiment of the present invention may contain an additive as necessary. As the additive, an antioxidant, a light stabilizer, a lubricant, a dispersant, a pigment, an antistatic agent, and an animal repellent
15 are exemplary examples. The additive may be of one kind, or two or more kinds.

[0023]

(Composition)

A content of the inorganic compound in the PE-based resin composition according to the embodiment of the present invention is 30% by mass or more and 65%
20 by mass or less with respect to the total mass of the resin composition. In a case where the content of the inorganic compound is equal to or more than the above-described lower limit value, the effect of suppressing the amount of resin used is sufficiently obtained. In a case where the content of the inorganic compound is equal to or less than the above-described upper limit value, sufficient film strength is obtained. The lower
25 limit of the above-described content of the inorganic compound is preferably 40% by

mass or more. The upper limit of the above-described content of the inorganic compound is preferably 55% by mass or less.

[0024]

A content of the resin component in the PE-based resin composition according to the embodiment of the present invention is preferably 35% by mass or more and 70% by mass or less with respect to the total mass of the resin composition. In a case where the content of the resin component is equal to or more than the above-described lower limit value, sufficient film strength is likely to be obtained. In a case where the content of the resin component is equal to or less than the above-described upper limit value, the effect of suppressing the amount of resin used is sufficiently obtained. The lower limit of the above-described content of the resin component is preferably 45% by mass or more. The upper limit of the above-described content of the resin component is preferably 60% by mass or less.

[0025]

A content of the copolymer A in the PE-based resin composition is 50% by mass or more and 95% by mass or less with respect to the total mass of the resin component. In a case where the content of the copolymer A is equal to or more than the above-described lower limit value, sufficient film strength is obtained. In a case where the content of the copolymer A is equal to or less than the above-described upper limit value, the total amount of HDPE and the copolymer B is relatively large, so that tensile strength is excellent. The lower limit of the content of the copolymer A is preferably 55% by mass or more, and more preferably 60% by mass or more. The upper limit of the content of the copolymer A is preferably 92% by mass or less. In a case where the PE-based resin composition contains the copolymer B, the upper limit of the content of the copolymer A is more preferably 90% by mass or less, and still more preferably 80% by

mass or less.

[0026]

A content of HDPE in the PE-based resin composition according to the embodiment of the present invention is preferably 5% by mass or more and 20% by mass or less with respect to the total mass of the resin component. In a case where the content of HDPE is equal to or more than the above-described lower limit value, bag-making properties of the film are stabilized. In a case where the content of HDPE is equal to or less than the above-described upper limit value, sufficient film strength is obtained. The lower limit of the above-described content of HDPE is more preferably 8% by mass or more. The upper limit of the above-described content of HDPE is more preferably 15% by mass or less, and still more preferably 12% by mass or less.

[0027]

A content of the copolymer B in the PE-based resin composition according to the embodiment of the present invention is preferably 10% by mass or more and 40% by mass or less with respect to the total mass of the resin component. In a case where the content of the copolymer B is equal to or more than the above-described lower limit value, stable moldability is obtained. In a case where the content of the copolymer B is equal to or less than the above-described upper limit value, sufficient film strength is obtained. The lower limit of the above-described content of the copolymer B is more preferably 20% by mass or more. The upper limit of the above-described content of the copolymer B is more preferably 30% by mass or less.

The total content of the copolymer A, HDPE, and the copolymer B with respect to the total mass of the resin component does not exceed 100% by mass.

[0028]

The total content of all LLDPE's in the PE-based resin composition according to

the embodiment of the present invention is preferably 80% by mass or more and 100% by mass or less with respect to the total mass of the resin component. In a case where the total content of LLDPE's is equal to or more than the above-described lower limit value, film strength is generally excellent. In a case where the total content of LLDPE's is equal to or less than the above-described upper limit value, opening properties are excellent. The lower limit of the above-described total content of LLDPE's is more preferably 85% by mass or more. The upper limit of the above-described total content of LLDPE's is preferably 95% by mass or less, and more preferably 93% by mass or less.

[0029]

A content of the additive in the PE-based resin composition according to the embodiment of the present invention is preferably 3% by mass or less, and more preferably 1% by mass or less with respect to the total mass of the PE-based resin composition.

[0030]

A method for producing the PE-based resin composition according to the embodiment of the present invention is not particularly limited, and methods of mixing each component with a single-screw extruder, a multi-screw extruder, a Banbury mixer, a kneader, or the like are exemplary examples. A part of the copolymer A and the resin component other than the copolymer A, used as necessary, may be mixed in advance with the inorganic compound or the additive to produce a masterbatch, and the masterbatch and the rest of the resin component may be mixed.

The mixing temperature during production of the PE-based resin composition can be adjusted as appropriate, for example, 150°C or higher and 190°C or lower.

[0031]

[Polyethylene-based resin packaging material]

The polyethylene-based resin packaging material (hereinafter, referred to as “PE-based resin packaging material”) according to the embodiment of the present invention is a packaging material formed from the PE-based resin composition according to the embodiment of the present invention. As aspects of the PE-based resin packaging material according to the embodiment of the present invention, known aspects can be adopted except that the PE-based resin composition according to the embodiment of the present invention is used.

Applications of the PE-based resin packaging material are not particularly limited, and a garbage bag, a shopping bag, a fashion bag, a storage bag, and a packing bag are exemplary examples.

[0032]

As a method for producing the PE-based resin packaging material according to the embodiment of the present invention, a known method can be adopted except that the PE-based resin composition according to the embodiment of the present invention is used. A method of molding the PE-based resin composition according to the embodiment of the present invention into a film, and heat-sealing the film to make a bag is an exemplary example. As the method of molding into a film, inflation molding and T-die extrusion molding are exemplary examples.

[0033]

The molding temperature (extrusion temperature) can be adjusted as appropriate, for example, 150°C or higher and 190°C or lower.

The thickness of the film may be appropriately set according to the application, and can be, for example, 10 μm or more and 70 μm or less.

[0034]

As described above, the PE-based resin composition according to the

embodiment of the present invention contains, as the resin component, the copolymer A with a specific ratio, and at least one of HDPE or the copolymer B. As a result, a film with favorable film strength, elongation, sealing strength, and impact strength is obtained even in a case where the inorganic compound is contained. In addition, the PE-based resin packaging material obtained by using the PE-based resin composition according to the embodiment of the present invention can be produced with high productivity, and can withstand packaging and transportation of heavy objects.

[0035]

Hereinafter, the present invention will be described in detail with reference to Examples, but the present invention is not limited to the following description.

[0036]

[Abbreviation]

The following abbreviations have the following meanings.

(Copolymer A)

A-1: C6-LLDPE, trade name "D139FK", manufactured by CP Chem., MFR: 1.0 g/10 min, melting point: 90°C

[0037]

(HDPE)

HDPE-1: high-density polyethylene, trade name "F0554", manufactured by

SCA

[0038]

(Copolymer B)

B-1: C4-LLDPE, trade name "FS153S", manufactured by SCA

[0039]

(Calcium carbonate masterbatch)

MB-1: trade name “GRANIC 422 (772)”, average particle size: 1.0 μm , calcium carbonate content: 80% by mass, C8-LLDPE content: 20% by mass, manufactured by GCR

[0040]

5 [Example 1]

As an inflation molding machine, an extruder (manufactured by Placo Co., Ltd.) having a cylinder inner diameter of 55 mm and a screw L/D of 32, and an annular die having a die diameter of 100 mm ϕ and a lip of 3 mm were used.

Each of the raw materials was weighed so that MB-1 was 65% by mass, the
10 polymer A-1 was 30% by mass, and the HDPE-1 was 5% by mass, and fed into the extruder to prepare a PE-based resin composition, and a tubular film having a thickness of 18 μm and a folding width of 460 mm was molded by inflation molding. The extrusion temperature was 170°C, and the blow ratio was approximately 3.0. Next, the film was heat-sealed at intervals of 600 mm in a longitudinal direction by a bag-making
15 machine (manufactured by Nozaki Kogyo Co., Ltd.), and was cut to produce a bag-shaped PE-based resin packaging material. The heat-sealing temperature was 160°C or higher and 180°C or lower.

The content of calcium carbonate in the packaging material (resin composition) was 52.0% by mass, the proportion of the copolymer A to the resin component was
20 89.6% by mass, and the proportion of HDPE to the resin component was 10.4% by mass.
[0041]

[Examples 2 to 6]

Bag-shaped PE-based resin packaging materials were produced in the same manner as in Example 1, except that the composition of the PE-based resin composition
25 was changed as shown in Table 1.

[0042]

[Comparative Examples 1 to 7]

Bag-shaped PE-based resin packaging materials were produced in the same manner as in Example 1, except that the composition of the PE-based resin composition was changed as shown in Table 2.

[0043]

[Tensile strength]

For the film of each example, a tensile strength was measured according to JIS Z 1702 using a universal tester EZ-500NXL manufactured by Shimadzu Corporation, and determined according to the following standard. A test piece was formed into a strip shape having a width of 10 mm and a length of 120 mm, and was measured at a tensile speed of 500 mm/min.

“O” (good): film strength was 11.8 MPa or more.

“X” (poor): film strength was less than 11.8 MPa.

15 [0044]

[Elongation]

For the film of each example, an elongation was measured according to JIS Z 1702 using a universal tester EZ-500NXL manufactured by Shimadzu Corporation, and determined according to the following standard. A test piece was formed into a strip shape having a width of 10 mm and a length of 120 mm, and was measured at a tensile speed of 500 mm/min.

“O” (good): elongation of the film was 150% or more.

“X” (poor): elongation of the film was less than 150%.

[0045]

25 [Sealing strength]

A test piece having a width of 15 mm was cut out from the heat seal portion of the bag of each example, and a sealing strength was measured at a test speed of 500 mm/min according to JIS Z 1711 using a strength tester EZ-500NXL manufactured by Shimadzu Corporation, and determined according to the following standard.

5 “O” (good): sealing strength of the film was 3.14 N or more.

 “X” (poor): sealing strength of the film was less than 3.14 N.

[0046]

[Impact strength]

For the film of each example, an impact test was performed according to JIS Z
10 1702 using a dirt impact tester No. 613 manufactured by Toyo Seiki Seisaku-sho, Ltd., and determined according to the following standard.

 “O” (good): conforming to the standard

 “X” (poor): not conforming to the standard

[0047]

15 [Comprehensive evaluations]

Comprehensive evaluations of the film of each example were performed according to the following standard.

 “A”: evaluation results of the tensile strength, the elongation, the sealing strength, and the impact strength were all “O” (good).

20 “B”: two or less of the evaluation results of the tensile strength, the elongation, the sealing strength, and the impact strength were “X” (poor).

 “C”: three or more of the evaluation results of the tensile strength, the elongation, the sealing strength, and the impact strength were “X” (poor).

[0048]

25 Tables 1 and 2 show the composition and the evaluation results of the PE-based

resin composition of each example.

[0049]

[Table 1]

			Example					
			1	2	3	4	5	6
PE-based resin composition [% by mass]	Calcium carbonate masterbatch	MB-1	65	60	60	50	40	80
	Copolymer A	A-1	30	35	20	45	50	10
	Copolymer B	B-1	0	0	15	0	0	10
	HDPE	HDPE-1	5	5	5	5	10	0
	Total		100	100	100	100	100	100
PE-based resin packaging material [% by mass]	Proportion of calcium carbonate		52.0	48.0	48.0	40.0	32.0	64.0
	Proportion of all resin components		48.0	52.0	52.0	60.0	68.0	36.0
	Proportion of copolymer A in resin components		89.6	90.4	61.5	91.7	85.3	72.2
	Proportion of copolymer B in resin components		0	0	28.9	0	0	27.8
	Total proportion of all LLDPE's in resin components		89.6	90.4	90.4	91.7	85.3	100
	Proportion of HDPE in resin components		10.4	9.6	9.6	8.3	14.7	0
	Total		100	100	100	100	100	100
Evaluation	Tensile strength	Measured value [MPa]	33.6	34.3	31.1	37.9	36.4	25.1
		Determination	O	O	O	O	O	O
	Elongation	Measured value [MPa]	179	182	173	191	185	155
		Determination	O	O	O	O	O	O
	Sealing strength	Measured value [MPa]	4.44	4.56	4.01	5.22	4.93	3.65
		Determination	O	O	O	O	O	O
	Impact strength		O	O	O	O	O	O
	Comprehensive evaluations		A	A	A	A	A	A

[0050]

[Table 2]

			Comparative Example						
			1	2	3	4	5	6	7
PE-based resin composition [% by mass]	Calcium carbonate masterbatch	MB-1	60	65	65	65	50	80	70
	Copolymer A	A-1	10	10	10	10	10	20	30
	Copolymer B	B-1	25	25	15	10	10	0	0
	HDPE	HDPE-1	5	0	10	15	30	0	0
	Total		100	100	100	100	100	100	100
PE-based resin packaging material [% by mass]	Proportion of calcium carbonate		48.0	52.0	52.0	52.0	40.0	64.0	56.0
	Proportion of all resin components		52.0	48.0	48.0	48.0	60.0	36.0	44.0
	Proportion of copolymer A in resin components		42.3	47.9	47.9	47.9	33.3	100.0	100.0
	Proportion of copolymer B in resin components		48.1	52.1	31.3	20.8	16.7	0.0	0.0
	Total proportion of all LLDPE's in resin components		90.4	100.0	79.2	68.7	50.0	100.0	100.0
	Proportion of HDPE in resin components		9.6	0.0	20.8	31.3	50.0	0.0	0.0
	Total		100	100	100	100	100	100	100
Evaluation	Tensile strength	Measured value [MPa]	28.2	28.9	28.4	28.0	27.7	26.2	27.1
		Determination	O	O	O	O	O	O	O
	Elongation	Measured value [MPa]	152	145	144	141	140	136	137
		Determination	O	X	X	X	X	X	X
	Sealing strength	Measured value [MPa]	5.61	5.54	5.50	3.11	3.10	2.80	2.98
		Determination	O	O	O	X	X	X	X
	Impact strength		X	O	X	X	X	X	X
	Comprehensive evaluations		B	B	B	C	C	C	C

[0051]

As shown in Tables 1 and 2, in the packaging materials (films) of Examples 1 to 6, in which a specific ratio of the copolymer A was combined with at least one of HDPE or the copolymer B, the packaging materials (films) were obtained with favorable film strength, elongation, sealing strength, and impact strength even in a case where the inorganic compound was contained. On the other hand, in Comparative Examples 1 to 7 in which the composition of the resin composition did not satisfy the conditions of the present invention, the film strength, the elongation, the sealing strength, and the impact strength were not achieved at the same time.

[CLAIMS]

What is claimed is:

[Claim 1]

A polyethylene-based resin composition, comprising:
5 an inorganic compound; and
a resin component,
wherein the resin component includes an ethylene- α -olefin copolymer A which
is obtained by copolymerizing ethylene and an α -olefin having 6 to 8 carbon atoms, in
which a melt flow rate is 0.8 g/10 min or more and 4.0 g/10 min or less, and includes
10 either or both of high-density polyethylene and an ethylene- α -olefin copolymer B which
is obtained by copolymerizing ethylene and an α -olefin having 4 carbon atoms,
a content of the inorganic compound is 30% by mass or more and 65% by mass
or less with respect to a total mass of the resin composition, and
a content of the ethylene- α -olefin copolymer A is 50% by mass or more and 95%
15 by mass or less with respect to a total mass of the resin component.

[Claim 2]

The polyethylene-based resin composition according to Claim 1,
wherein a content of the high-density polyethylene is 5% by mass or more and
20% by mass or less with respect to the total mass of the resin component.

20 [Claim 3]

The polyethylene-based resin composition according to Claim 1 or 2,
wherein the inorganic compound is calcium carbonate.

[Claim 4]

A polyethylene-based resin packaging material formed from the polyethylene-
25 based resin composition according to any one of Claims 1 to 3.

[Claim 5]

The polyethylene-based resin packaging material according to Claim 4,
wherein the polyethylene-based resin packaging material is for a garbage bag, a shopping bag, a fashion bag, a storage bag, or a packing bag.