Summary

[0006a]

In a first aspect, the present disclosure refers to an ethylene-based resin composition satisfying the following requirements (1) to (4):

(1) a melt flow rate (190°C, 2.16 kg load) measured in accordance with JIS K7210 is 0.1 g/10 min or more and 0.7 g/10 min or less,

(2) a density is 915 kg/m^3 or more and 935 kg/m^3 or less,

(3) a melt index (I21: 190°C, 21.6 kg load) measured in accordance with JIS K7210 is 45 or less, and

(4) Hh/Ht, which represents the amount of heat of fusion (Hh) determined from a DSC curve at 120°C or higher to the total amount of heat of fusion (Ht) determined from a DSC curve of differential scanning calorimetry measurement (DSC measurement), is 10% or more and 55% or less.

[0006b]

In another aspect, the present disclosure refers to a film comprising the ethylene-based resin composition as disclosed herein.

[0006c]

[Table 1]

Table 1

				Example 1	Example 2	Reference Example 3
			Unit	SP3210	SP3210 70% SP1510 30%	SP3210 30% SP1510 70%
Resin composition physical properties	MFR		g/10 min	0.58	0.57	0.9
	Density		kg/m^3	929	926	918
	I21		g/10 min	19	19	18
	Amount of component at 120°C or higher in DSC (Hh/Ht)		%	43	34	22
	Melt tension (190°C)		mN	65	50	33
Film physical properties	Film thickness		μm	40	40	40
	Elastic Modulus	MD	MPa	590	471	317
		TD	MPa	835	665	402
	Dart impact		g	290	670	1500
	Inflation formability (bubble stability)		-	Favorable	Favorable	Favorable

[0043]

CLAIMS

[Claim 1]

An ethylene-based resin composition satisfying the following requirements (1) to (4):

(1) a melt flow rate (190°C, 2.16 kg load) measured in accordance with JIS K7210 is 0.1 g/10 min or more and 0.7 g/10 min or less,

(2) a density is 915 kg/m^3 or more and 935 kg/m^3 or less,

(3) a melt index (I21: 190°C, 21.6 kg load) measured in accordance with JIS K7210 is 45 or less, and

(4) Hh/Ht, which represents the amount of heat of fusion (Hh) determined from a DSC curve at 120°C or higher to the total amount of heat of fusion (Ht) determined from a DSC curve of differential scanning calorimetry measurement (DSC measurement), is 10% or more and 55% or less.

[Claim 2]

The ethylene-based resin composition according to claim 1, further satisfying the following requirement (5) in addition to the requirements (1) to (4):

(5) a melt tension at 190°C determined by measuring the stress when the specimen is stretched at a constant speed, using a capillary rheometer in accordance with the following conditions is 30 mN or more:

Conditions: resin temperature 190°C, melting time 6 minutes, barrel diameter 9.55 mmφ, extrusion speed 15 mm/min, winding speed 24 m/min, nozzle diameter 2.095 mmφ, and nozzle length 8 mm.

[Claim 3]

The ethylene-based resin composition according to claim 1, wherein the density is 917 kg/m^3 or more.

[Claim 4]

A film comprising the ethylene-based resin composition according to any one of claims 1 to 3.

[Claim 5]

A laminated film having a layer composed of the film according to claim 4.