to minute irregularities of the film surface excel in blocking resistance, ones having a well-balanced transparency and blocking resistance are desired, from the viewpoint of visibility of the content and examination of defects in the film. Also when an ethylene polymer is used for a bottle, for example, an improvement in the transparency is desired as well.

Citation List

Patent Literature

[0007]

Patent Literature 1: JP H07-026079A

Patent Literature 2: JP H02-276807A

Patent Literature 3: JP H04-213309A

Patent Literature 4: WO 93/08221

Patent Literature 5: JP H08-311260A

Patent Literature 6: JP 2006-233207A

Patent Literature 7: JP 2009-197225A

Patent Literature 8: WO 2013/099927A

Patent Literature 9: JP 2014-177506A

Summary

[0007a]

In a first aspect of the present disclosure, there is provided an ethylene resin composition (Z) comprising:

an ethylene-α-olefin copolymer (A) which is a copolymer of ethylene and one or more α-olefins having 4 to 10 carbon atoms and which satisfies the following requirements (1) to (4); and

an ethylene-α-olefin copolymer (B) which is a copolymer of ethylene and one or more α-olefins having 4 to 10 carbon atoms and which satisfies the following requirements (a) to (c):

(1) the density is in a range of 890 kg/m^3 or more and 935 kg/m^3 or less,

(2) the melt flow rate (MFR) at 190°C under a load of 2.16 kg is in a range of 0.1 g/10 min or more and less than 3.0 g/10 min,

(3) the ratio [MT/η^* (g/P)] of the melt tension [MT (g)] at 190°C to the shear viscosity [η^* (P)] at 200°C and an angular velocity of 1.0 rad/s is in a range of 1.20×10^{-4} or more and 2.90×10^{-4} or less, and

(4) the zero-shear viscosity [η_0 (P)] at 200°C and the weight-average molecular weight (Mw) measured by GPC-viscometry (GPC-VISCO) satisfy the following equation (Eq-1):

$$0.01 \times 10^{-13} \times Mw^{3.4} \leq \eta_0 \leq 3.5 \times 10^{-13} \times Mw^{3.4} \cdots (Eq\text{-}1),$$

(a) the density is in a range of 890 kg/m^3 or more and 930 kg/m^3 or less,

(b) the melt flow rate (MFR) at 190°C under a load of 2.16 kg is in a range of 0.1 g/10 min or more and 10 g/10 min or less, and

(c) the intrinsic viscosity [[η] (dl/g)] measured in decalin at 135°C and the weight-average molecular weight (Mw) measured by GPC-viscometry (GPC-VISCO) satisfy the following equation (Eq-4):

$$1.90 \times 10^{-4} \times Mw^{0.776} \leq [\eta] \leq 2.80 \times 10^{-4} \times Mw^{0.776} \quad \cdots(Eq\text{-}4)$$

[0007b]

In another aspect of the present disclosure, there is provided a shaped article comprising the ethylene resin composition (Z) as disclosed herein.

[0007c]

In yet another aspect of the present disclosure, there is provided a film comprising the ethylene resin composition as disclosed herein.

[0007d]

In a further aspect of the present disclosure, there is provided a multilayer film comprising a layer comprising the ethylene resin composition (Z) as disclosed herein.

Technical Problem

[0008]