CLAIMS

1. A film being a single layer film, characterized in that it is made of a blend resin of two kinds of resins both belonging to any one of the following ETFE, PFA, FEP, ECTFE and PMP,

wherein the blend resin is a blend material of a resin having a melt flow rate of from 4 to 7 g/10 min. and a resin having a melt flow rate of from 20 to 50 g/10 min, wherein in the case where the resin is ETFE, the melt flow rate is measured in accordance with ASTM D3159 under a load of 49N at 297 C, in the case where the resin is PFA, the melt flow rate is measured in accordance with ASTM D1238 under a load of 49N at 372 C, in the case where the resin is FEP, the melt flow rate is measured in accordance with ASTM D1238 under a load of 49N at 372 C, in the case where the resin is ECTFE, the melt flow rate is measured in accordance with ASTM D1238 under a load of 21.168N at a temperature of 271.5 C, and in the case where the resin is PMP, the melt flow rate is measured in accordance with ASTM D1238 under a load of 49N at a temperature of 260 C,

the melt flow rate of the film to be measured by the following measurement method is at least 6 g/10 min. and less than 20 g/10 min., and α of the film to be measured by the following measurement method is at least 0.99:

ETFE: a copolymer comprising tetrafluoroethylene units and ethylene units, wherein the molar ratio of tetrafluoroethylene units/ethylene units is from 60/40 to 40/60, and the proportion of units based on other monomer to the total of tetrafluoroethylene units and ethylene units is from 0 to 6 mol%,

PFA: a copolymer comprising tetrafluoroethylene units and perfluoro(alkyl vinyl ether) units, wherein the molar ratio of tetrafluoroethylene units/perfluoro(alkyl vinyl ether) units is from 99/1 to 85/15, and the proportion of units based on other monomer to the total of tetrafluoroethylene units and perfluoro(alkyl vinyl ether) units is from 0 to 5 mol%,

FEP: a copolymer comprising tetrafluoroethylene units and hexafluoropropylene units, wherein the molar ratio of tetrafluoroethylene units/hexafluoropropylene units is from 75/25 to 95/5, proportion of units based on other monomer to the total of tetrafluoroethylene units and hexafluoropropylene units is from 0 to 5 mol%,

ECTFE: a copolymer comprising chlorotrifluoroethylene units and ethylene units,

wherein the molar ratio of chlorotrifluoroethylene units/ethylene units is from 60/40 to 40/60, and the proportion of units based on other monomer to the total of chlorotrifluoroethylene units and ethylene units is from 0 to 5 mol%,

PMP: a polymer comprising from 85 to 100 mol% of 4-methyl-1-pentene units and from 0 to 15 mol% of units based on at least one type of monomer selected from the group consisting of ethylene and $C_{3\text{-}20}$ α-olefins,

Formula 1: $\alpha = 1 - (\Sigma(y_i - f_i)^2/\Sigma(y_i - y_a)^2)$

wherein y_i is LN (η_i), f_i is an estimated value by the approximate quadratic function, and y_a is an average value of LN (η_i),

wherein LN (η_i) is a natural logarithm of a complex shear viscosity η_i of the film measured, in accordance with ISO 6721-10: 1999, with applying a sine wave of an angular frequency ω_i, and

wherein the estimated value by the approximate quadratic function is an estimated value by the approximate quadratic function obtained, by at least squares method, from a graph having the natural logarithm LN (η_i) plotted on the vertical axis and a natural logarithm LN (ω_i) of the angular frequency ω_i plotted on the horizontal axis.

2. The film according to Claim 1, wherein between the two kinds of resins, the ratio of the melt flow rate of the resin having a melt flow rate of from 20 to 50 g/10 min. to the melt flow rate of the resin having a melt flow rate of from 4 to 7 g/10 min., is from 3 to 12.

3. The film according to Claim 1, wherein each of the resins comprise tetrafluoroethylene units, ethylene units and (perfluoroalkyl)ethylene units.

4. The film according to Claim 1, wherein each of the resins comprise tetrafluoroethylene units and perfluoro(alkyl vinyl ether) units.

5. The film according to Claim 1, wherein each of the resins comprise tetrafluoroethylene units, hexafluoropropylene units and perfluoro(alkyl vinyl ether) units.

6. The film according to Claim 1, wherein each of the resins comprise chlorotrifluoroethylene units and ethylene units.

7. The film according to Claim 1, wherein each of the resins comprise 4-methyl-1-pentene units and 1-octadecene units.

8. The film according to Claim 1, which is a release film for the production of a semiconductor device.

9. A method for producing a film as defined in Claim 1, comprising using two resins

both belonging to any one of said ETFE, PFA, FEP, ECTFE and PMP, wherein the melt flow rate of one resin is from 4 to 7 g/10 min. and the melt flow rate of the other resin is from 20 to 50 g/10 min., and blending the two kinds of resins, followed by molding into a film-form.

10. The method for producing a film according to Claim 9, wherein using an extrusion molding apparatus having a melt-kneading section provided with a screw and a cylinder that accommodates the screw, and a molding section provided with a die connected to the tip of the cylinder, the film is produced by setting the product ($\gamma \times (L_1/D)$) of the shear rate at the screw metering zone and the ratio of the length of the screw metering zone to the cylinder bore obtainable by the following formula, at the time of melt kneading the two kinds of resins, to be from 100 to 3,000 s^{-1}:

$$\gamma \times (L_1/D) = \pi \times L_1 \times N/(60 \times h)$$

where γ is the shear rate (s^{-1}), L_1 is the length (mm) of the screw metering zone, D is the cylinder bore (mm), N is the screw rotation speed (rpm), and h is the groove depth (mm) of the screw metering zone.