CLAIMS

1. A laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler;

a layer C containing an ethylene polymer (C) containing 70 mol% or more of a structural unit derived from ethylene;

at least one layer selected from the group consisting of a barrier layer and an adhesive layer; and

a layer D containing an ethylene polymer (D) containing 70 mol% or more of a structural unit derived from ethylene, the ethylene polymer (D) having a density of 880 kg/m^3 or more and less than 930 kg/m^3, and a melt flow rate of 0.01 g/10 min to 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N.

2. A laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene, the ethylene polymer (A) having a density of

930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 0.01 g/10 min or more and less than 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler, the ethylene polymer (B) having a density of 930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 3 g/10 min to 25 g/10 min as measured at a temperature of 190°C and a load of 21.18 N;

a layer C containing an ethylene polymer (C) containing 70 mol% or more of a structural unit derived from ethylene, the ethylene polymer (C) has a density of 880 kg/m^3 or more and less than 930 kg/m^3, and a melt flow rate of 0.01 g/10 min or more and less than 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N;

at least one layer selected from the group consisting of a barrier layer and an adhesive layer; and

a layer D containing an ethylene polymer (D) containing 70 mol% or more of a structural unit derived from ethylene.

3. A laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler selected from the group consisting of calcium carbonate, kaolin, metakaolin, hydrotalcite, mica, talc, and fibrous basic magnesium sulfate particle;

a layer C containing an ethylene polymer (C) containing 70 mol% or more of a structural unit derived from ethylene;

at least one layer selected from the group consisting of a barrier layer and an adhesive layer; and

a layer D containing an ethylene polymer (D) containing 70 mol% or more of a structural unit derived from ethylene.

4. A laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler;

a layer C containing an ethylene polymer (C) containing 70 mol% or more of a structural unit derived from ethylene;

at least one layer selected from the group consisting of a barrier layer and an adhesive layer; and

a layer D containing an ethylene polymer (D) containing 70 mol% or more of a structural unit derived from ethylene,

wherein the barrier layer is a layer including at least one selected from among silicon oxide, alumina and spinel, and a composition containing an inorganic layered compound and a polyvinyl alcohol-based resin, and

the adhesive layer is a layer including at least one adhesive selected from the group consisting of a polyurethane-based adhesive, a polyester-based adhesive, an imine-based adhesive, and a titanate-based adhesive.

5. The laminated film according to any one of claim 1 to 4, wherein the layer B has a content of the ethylene polymer (B) of 20 wt% to 80 wt% and a content of the inorganic filler of 20 wt% to 80 wt% with respect to a total content of the ethylene polymer (B) and the inorganic filler of 100 wt%.

6. The laminated film according to any one of claims 1 to 5, wherein

the layer A has a thickness of 5 μm to 30 μm,

the layer B has a thickness of 20 μm to 60 μm, and

the layer C has a thickness of 5 μm to 30 μm.

7. The laminated film according to any one of claims 1 to 6, wherein the layer D has a thickness of 20 μm to 100 μm.

8. A method for producing a laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler;

a layer C containing an ethylene polymer (C) containing 70 mol% or more of a structural unit derived from ethylene;

at least one layer selected from the group consisting of a barrier layer and an adhesive layer; and

a layer D containing an ethylene polymer (D) containing 70 mol% or more of a structural unit derived from ethylene,

the method comprising steps of:

for a base film comprising, in sequence, the layer A, the layer B, and the layer C, subjecting a surface on the layer C side to a corona treatment;

laminating the layer D on the surface subjected to the corona treatment of the base film on the layer C side with the at least one layer selected from the group consisting of the barrier layer and the adhesive layer interposed between the layer C and the surface subjected the corona treatment.

9. A laminated film comprising, in sequence:

a layer A containing an ethylene polymer (A) containing 80 mol% or more of a structural unit derived from ethylene, the ethylene polymer (A) having a density of 930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 0.01 g/10 min or more and less than 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N;

a layer B containing an ethylene polymer (B) containing 70 mol% or more of a structural unit derived from ethylene and an inorganic filler, the ethylene polymer (B) having a density of 930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 3 g/10 min to 25 g/10 min as measured at a temperature of 190°C and a load of 21.18 N, and a content of the ethylene polymer (B) is 20 wt% to 80 wt% and a content of the inorganic filler is 20 wt% to 80 wt% with respect to a total content of the ethylene polymer (B) and the inorganic filler of 100 wt%; and

a layer C containing an ethylene polymer (C)

containing 70 mol% or more of a structural unit derived from ethylene, the ethylene polymer (C) having a density of 880 kg/m^3 or more and less than 930 kg/m^3, and a melt flow rate of 0.01 g/10 min or more and less than 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N.

10. The laminated film according to claim 9, wherein the inorganic filler is one or more compounds selected from the group consisting of hydrotalcite, talc, and fibrous basic magnesium sulfate particles.

11. The laminated film according to claim 9 or 10, the laminated film having a content of the ethylene polymer (B) of 20 wt% to 60 wt% and a content of the inorganic filler of 40 wt% to 80 wt% with respect to a total content of the ethylene polymer (B) and the inorganic filler of 100 wt%.

12. The laminated film according to any one of claims 9 to 11, wherein

the layer A has a thickness of 5 μm to 30 μm,

the layer B has a thickness of 20 μm to 60 μm, and

the layer C has a thickness of 20 μm to 100 μm.

13. A laminated film comprising, in sequence:

a layer A' that contains an ethylene-α-olefin copolymer (A') containing 80 mol% or more of a structural unit derived from ethylene and having a density of 930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 0.01 g/10 min or more and less than 3 g/10 min as measured at a temperature of 190°C and a load of 21.18 N; and

a layer B' that contains an ethylene-α-olefin copolymer (B') and an inorganic filler, the ethylene-α-olefin copolymer (B') containing 70 mol% or more of a structural unit derived from ethylene, and having a density of 930 kg/m^3 to 970 kg/m^3, and a melt flow rate of 3 g/10 min to 25 g/10 min as measured at a temperature of 190°C and a load of 21.18 N, and that has a content of the ethylene-α-olefin copolymer (B') of 20 wt% to 60 wt% and a content of the inorganic filler of 40 wt% to 80 wt% with respect to a total content of the ethylene-α-olefin copolymer (B') and the inorganic filler of 100 wt%.