CLAIMS

1. An ethylene/alpha-olefin copolymer satisfying the following conditions (a) to (d):

(a) a characteristic relaxation time (λ) at 190°C in shear rate conditions of 0.1 to 500 rad/s, is less than 10.0 millisecond;

(b) a weight average molecular weight is from 40,000 to 150,000 g/mol;

(c) a molecular weight distribution is from 1.5 to 2.5; and

(d) a density is from 0.850 to 0.910 g/cc.

2. The ethylene/alpha-olefin copolymer according to claim 1, wherein the characteristic relaxation time is from 1.0 to 9.5 millisecond.

3. The ethylene/alpha-olefin copolymer according to claim 1, wherein the weight average molecular weight is from 41,000 to 130,000 g/mol.

4. The ethylene/alpha-olefin copolymer according to claim 1, wherein the molecular weight distribution is from 1.5 to 2.4.

5. The ethylene/alpha-olefin copolymer according to claim 1, which has a melt index (190°C, 2.16 kg load conditions) from 0.1 to 50 g/10 min.

6. The ethylene/alpha-olefin copolymer according to claim 1, wherein the alpha-olefin comprises one or more selected from the group consisting of propylene, 1-butene, 1-pentene, 4-methyl-1-pentene, 1-hexene, 1-heptene, 1-octene, 1-decene, 1-undecene, 1-dodecene, 1-tetradecene, 1-hexadecene and 1-eicosene.

7. An encapsulant film comprising an ethylene/alpha-olefin copolymer satisfying the following conditions (a) to (d):

(a) a characteristic relaxation time (λ) at 190°C in shear rate conditions of 0.1 to 500 rad/s, is less than 10.0 millisecond;

(b) a weight average molecular weight is from 40,000 to 150,000 g/mol;

(c) a molecular weight distribution is from 1.5 to 2.5; and

(d) a density is from 0.850 to 0.910 g/cc.

8. The encapsulant film according to claim 7, further

comprising one or more selected from the group consisting of a crosslinking agent, a crosslinking auxiliary agent, a silane coupling agent, an unsaturated silane compound, an amino silane compound, a light stabilizer, a UV absorbent and a thermal stabilizer.

9. A solar cell module comprising the encapsulant film of claim 7.