CLAIMS:

What is claimed is:

1. An ethylene copolymer, comprising:

at least 50 wt% ethylene derived units; and

at least 20 wt% of at least one C3 to C20 comonomer, wherein the copolymer has:

a melt index of 0.5 g/10 min to about 50 g/10 min, as measured according to ASTM D1238 (190°C/2.16 kg);

density of about 0.856 g/cc to 0.890 g/cc, as measured according to ASTM D792;

volume resistivity at 23°C of at least $5x10^{15}$ Ωcm; and

0.01 to 4.0 ppm by weight of aluminum.

2. The ethylene copolymer of claim 1, further comprising a first long chain branching index (g'(Mz)) of 0.80 to 0.93.

3. The ethylene copolymer of claims 1 or 2, further comprising a second long chain branching index (g'(Mz+1)) of 0.80 to 0.93.

4. The ethylene copolymer of claims 1 or 2, further comprising an average ratio of g'Mz+1 to g'(Mz) of 0.9 to 1.0.

5. The ethylene copolymer of claims 1 or 2, further comprising less than 0.7 vinyl/total unsaturation and an unsaturation level of trisubstituted olefins of 50 to 500.

6. The ethylene copolymer of claims 1 or 2, further comprising a r1r2 reactivity ratio of 0.2 to 0.8.

7. The ethylene copolymer of claims 1 or 2, wherein the at least one C3 to C20 comonomer is butene or octene or a combination thereof.

8. An electronic device module comprising:

at least one electronic device, and

an ethylene copolymer film in direct contact with at least one surface of the electronic device, the ethylene copolymer comprising:

at least 50 wt% ethylene derived units; and

at least 20 wt% of at least one C3 to C20 comonomer, wherein the copolymer has:

a melt index of 0.5 g/10 min to about 50 g/10 min, as measured according to ASTM D1238 (190°C/2.16 kg);

density of about 0.856 g/cc to 0.890g/cc, as measured according to ASTM D792;

volume resistivity at 23°C of at least $5x10^{15}$ Ωcm; and

0.01 to 4.0 ppm by weight of aluminum.

9. The electronic device module of claim 8, wherein the copolymer further comprises:

a first long chain branching index (g'(Mz)) of 0.80 to 0.93;

a second long chain branching index (g'(Mz+1)) of 0.80 to 0.93;

an average ratio of g'Mz+1 to g'(Mz) of 0.9 to 1.0; or

any combination thereof.

10. A method for making an electronic device module comprising:

providing at least one electronic device, and

laminating an ethylene copolymer film onto at least one surface of the electronic device, the ethylene copolymer comprising:

at least 50 wt% ethylene derived units; and

at least 20 wt% of at least one C3 to C20 comonomer, wherein the copolymer has:

a melt index of 0.5 g/10 min to about 50 g/10 min, as measured according to ASTM D1238 (190°C/2.16 kg);

a density of about 0.856 g/cc to 0.890 g/cc, as measured according to ASTM D792;

a volume resistivity at 23°C of at least $5x10^{15}$ Ωcm; and

0.01 to 4.0 ppm by weight of aluminum.

11. The electronic device module of claim 10, wherein the copolymer further comprises:

a first long chain branching index (g'(Mz)) of 0.80 to 0.93;

a second long chain branching index (g'(Mz+1)) of 0.80 to 0.93;

an average ratio of g'Mz+1 to g'(Mz) of 0.9 to 1.0; or

any combination thereof.

12. The electronic device module of claims 10 or 11, wherein the copolymer further comprises:

less than 0.7 vinyl/total unsaturation and an unsaturation level of trisubstituted olefins of 50 to 500;

a r1r2 reactivity ratio of 0.2 to 0.8; or

both.

13. A method for making an ethylene based copolymer, comprising polymerizing ethylene derived units and at least one C3 to C20 comonomer in the presence of a catalyst system, and obtaining an ethylene based copolymer polyolefin comprising at least 50 wt% ethylene derived units; and at least 20 wt% of at least one C3 to C20 comonomer, wherein the copolymer has:

a melt index of 0.5 g/10 min to about 50 g/10 min, as measured according to ASTM D1238 (190°C/2.16 kg);

a density of about 0.857 g/cc to 0.890 g/cc, as measured according to ASTM D792;

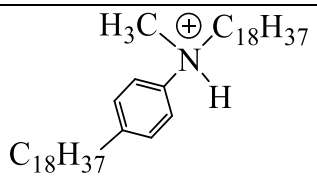
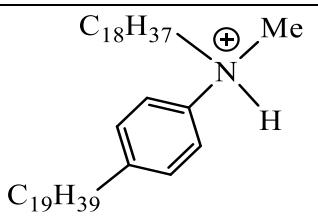
a volume resistivity at 23°C of at least $5x10^{15}$ Ωcm; and

0.01 to 4.0 ppm by weight of aluminum.

14. The method of claim 13, wherein the catalyst system comprises at least one bridged metallocene and at least one ionic ammonium borate or phosphonium borate activator represented by

$$[\text{cation}]^{+}[MQ_4]^{-}$$

wherein the $[MQ_4]^{-}$ is tetrakis (heptafluoro naphthyl) borate and the [cation]+ is selected from the group consisting of:

1		2	

15. The method of claims 13 or 14, wherein the [cation]+ is

