CLAIMS

1. A method of reducing or eliminating melt fracture during extrusion comprising:

blending an ethylene-based polymer having a melt index (I_2) of less than 2.0 dg/min with a polymer processing aid (PPA) to remove the melt fracture during extrusion, wherein the PPA comprises silicone polyether, the silicone polyether being the reaction product of:

a polyoxyalkylene copolymer represented by the formula $R^1—(C_nH_{2n}O)—R^2$, wherein:

n is from 2 to 4 inclusive;

R^1 is a monovalent terminally unsaturated aliphatic hydrocarbon group containing 2 to 12 carbon atoms; and

R^2 is hydrogen, an acetyl group, a monovalent terminally unsaturated aliphatic hydrocarbon group containing 2 to 12 carbon atoms, or a monovalent hydrocarbon group containing 1 to 8 carbons; and

organopolysiloxane containing at least one silicon-bonded hydrogen atom (SiH) per molecule.

2. The method of claim 1, wherein the silicone polyether has a kinematic viscosity of from 100 to 100,000 cSt.

3. The method of claim 1 or claim 2, wherein the ethylene-based polymer has a melt index (I_2) from 0.05 to 1.5 dg/min.

4. The method of any one of claims 1 to 3, wherein the PPA is provided in a polymer masterbatch.

5. The method of claim 4, wherein the polymer masterbatch comprises from 1 to less than 15 wt. % PPA.

6. The method of any one of claims 1 to 5, wherein the method further comprises obtaining an extrusion product, wherein the extrusion product comprises 200-8000 ppm silicone polyether.

7. The method of any one of claims 1 to 6, wherein the PPA or a masterbatch thereof is dry blended with the ethylene-based polymer.

8. The method of any one of claims 1 to 6, wherein the PPA or a masterbatch thereof is melt blended with the ethylene-based polymer.

9. The method of any one of claims 1 to 8, wherein the ethylene-based polymer comprises LLDPE.

10. An article produced from the method of any one of claims 1 to 9.

11. The article of claim 10, wherein the article is a blown film, a cable, a wire, a pipe, or a tube.

12. The use of a polymer processing aid (PPA) to remove melt fracture during extrusion, the use comprising blending ethylene-based polymer having a melt index (I_2) of less than 2.0 dg/min with the PPA, wherein the PPA comprises silicone polyether.

13. The use of a PPA of claim 12, wherein the silicone polyether has a kinematic viscosity of from 100 to 100,000 cSt.

14. The use of a PPA of claim 12 or claim 13, wherein the ethylene-based polymer comprises LLDPE.

15. The use of a PPA of any one of claims 12-14, wherein the PPA is provided in a polymer masterbatch, wherein the polymer masterbatch comprises from 1 to less than 15 wt. % PPA.