CLAIMS:

1. A propylene-based copolymer produced from a mixture comprising ethylene monomers and propylene monomers, wherein the propylene-based copolymer comprises:

a flexural modulus between approximately 400 MPa and approximately 1100 MPa;

a molecular weight of about 200,000 g/mol to 800,000 g/mol;

a r_1r_2 reactivity ratio greater than or equal to 2.0; and

an ethylene content greater than approximately 2.5 weight percent (wt.%).

2. The propylene-based copolymer of claim 1, wherein the r_1r_2 reactivity ratio of the propylene-based copolymer is greater than or equal to 3.0.

3. The propylene-based copolymer of claim 1, wherein the r_1r_2 reactivity ratio of the propylene-based copolymer is greater than or equal to 4.0.

4. The propylene-based copolymer of claim 1, wherein a melt temperature of the propylene-based copolymer is less than approximately 140°C.

5. The propylene-based copolymer of claim 1, comprising a triad tacticity index based on PP that is greater than 80%.

6. The propylene-based copolymer of claim 1, wherein the propylene-based copolymer comprises regioselectivity defects between 0.01 and 1.2 mol%.

7. The propylene-based copolymer of claim 1, wherein wherein the propylene-based copolymer further comprises a PDI of 1.8 to 5 and Mz/Mw of 1.5 to 4.0, and wherein the comonomer of the propylene-based copolymer is distributed uniformly, orthogonally, or

conventionally generated by single or multiple reactors connected in series or parallel configuration.

8. A method, comprising:

providing an ethylene feedstock at a first flow rate;

providing a propylene feedstock at a second flow rate, wherein a ratio (C2/C3) of the first flow rate to the second flow rate is less than or equal to approximately 0.06; and

generating an ethylene-propylene composition by contacting the propylene feedstock and the ethylene feedstock in the presence of a catalyst.

9. The method of claim 8, wherein a ratio ([C2]/[M]) of an amount of ethylene monomer and a sum of an amount of ethylene monomers and propylene monomers in a reactor is between less than or equal to approximately 0.025.

10. The method of claim 8, wherein a r_1r_2 reactivity ratio of the ethylene-propylene composition is greater than or equal to 2.0.

11. The method of claim 8, wherein a r_1r_2 reactivity ratio of the resin is greater than or equal to 4.0.

12. The method of claim 8, wherein a ratio of the first flow rate to the second flow rate is between 0.005 kg/kg and 0.055 kg/kg.

13. The method of claim 8, wherein a propylene-propylene-propylene [PPP] mole fraction of the ethylene-propylene composition is between 0.8 to 0.9.

14. The method of claim 8, comprising a triad tacticity index based on PP and EP that is greater than 80%.

15. The method of claim 8, comprising contacting the propylene feedstock and the ethylene feedstock in the presence of the catalyst at a temperature between approximately 70°C and approximately 190°C.