WHAT IS CLAIMED IS:

1. An ethylene-based polymer comprising a higher molecular weight component (HMW component) and a lower molecular weight component (LMW component), the ethylene-based polymer being characterized by a density greater than or equal to 0.949 g/cm^3, measured according to ASTM D792, a ratio of Mw/Mn of from 25 to 35, an ESCR of at least 600 hr. measured according to ASTM D-1693, Condition B (Igepal 10%), and by a bimodal weight average molecular weight distribution with a local minimum in a range of log (molecular weight) 4 to 6 between a peak representing the HMW component and a peak representing the LMW component, as determined by Gel Permeation Chromatography (GPC) analysis, of the ethylene-based polymer.

2. The ethylene-based polymer of claim 1 wherein the ethylene-based polymer has a split, and the split of the ethylene-based polymer is from 20% to 45%.

3. The ethylene-based polymer of any one of the preceding claims wherein the ethylene-based polymer is a polyethylene resin and has an ESCR of at least 650 hr.

4. The ethylene-based polymer of any one of the preceding claims wherein the ethylene-based polymer has a melt flow ratio (I21/I5) in the range from 15 to 45 measured according to ASTM D1238 (121 and 15 measured at 190°C and 21.6 kg or 5.0 kg weight respectively), and a flow index (I21) in the range from 15 to 61.

5. The ethylene-based polymer of any one of the preceding claims wherein the Mz/Mw of the high molecular weight component is from 3.5 to 5.

6. The ethylene-based polymer of any one of the preceding claims wherein the ethylene-based polymer has a Capillary Swell t1000 (sec) of at least 6 seconds.

7. A composition comprising bis(2-pentamethylphenylamido)ethyl)zirconium dibenzyl, and at least one of (methylcyclopentadienyl)(1-methyl-tetrahydroindenyl)zirconium dimethyl and (propylcyclopentadienyl)(1,3-dimethyl-tetrahydroindenyl)zirconium dimethyl.

8. A process for copolymerizing ethylene and one or more alpha-olefins in a single olefin polymerization reactor utilizing a catalyst system, an activator and a support in order to produce an ethylene-based polymer, the process comprising combining ethylene and at least one alpha-olefin comonomer in the presence of a catalyst system, an activator and a support, wherein the catalyst system comprises a main catalyst and a trim catalyst, wherein the main catalyst comprises bis(2-pentamethylphenylamido)ethyl)zirconium

dibenzyl, and wherein the trim catalyst comprises at least one of (propylcyclopentadienyl)(1,3-dimethyl-tetrahydroindenyl)zirconium dimethyl and (methylcyclopentadienyl)(1-methyl-tetrahydroindenyl)zirconium dimethyl.

9. The process of claim 8 wherein the ethylene-based polymer that is produced is an ethylene-based polymer having a higher molecular weight component and a lower molecular weight component and a bimodal molecular weight distribution, the ethylene-based polymer being characterized by a density greater than or equal to 0.949 g/cm^3, measured according to ASTM D792, a ratio of Mw/Mn of from 25 to 35, an ESCR of at least 600 hr. measured according to ASTM D-1693, Condition B (Igepal 10%), and by a bimodal weight average molecular weight distribution with a local minimum in a range of log (molecular weight) 4 to 6 between a peak representing the maximum of the HMW component and a peak representing the maximum of the LMW component, as determined by Gel Permeation Chromatography (GPC) analysis, of the ethylene-based polymer.

10. An article manufactured using the ethylene-based polymer of any one of claims 1 to 6.

11. The article of claim 10 wherein the article is prepared by blow molding.