CLAIMS

1. A high-density polyethylene blend comprising: (a) from 25 to 90 weight percent of a recycled high-density polyethylene; and (b) from 10 to 75 weight percent of a virgin bimodal high-density polyethylene having a density from 0.940 gram per cubic centimeter (g/cc) to 0.956 g/cc and a flow index (I_{21}) from 25 grams per 10 minutes (g/10 min.) to 40 g/10 min.

2. The high-density polyethylene blend of Claim 1 wherein the recycled high-density polyethylene is a post-consumer recycled polymer.

3. The high-density polyethylene blend of Claim 1 or Claim 2 wherein the virgin bimodal high-density polyethylene has a density from 0.945 g/cc to 0.955 g/cc.

4. The high-density polyethylene blend of any one of Claims 1 to 3 wherein the virgin bimodal high-density polyethylene has a flow index (I_{21}) from 28 g/10 min to 35 g/10 min.

5. The high-density polyethylene blend of any one of Claims 1 to 4 wherein the virgin bimodal high-density polyethylene has a timed die swell (time to reach 25.4 cm diameter) at a shear rate of 300 per second (s^{-1}) from 23 seconds to 30 seconds.

6. The high-density polyethylene blend of any one of Claims 1 to 5 which has a density from 0.950 g/cc to 0.965 g/cc, or a flow index (I_{21}) from 28 g/10 min. to 60 g/10 min., or both properties.

7. The high-density polyethylene blend of any one of Claims 1 to 6 which contains at least 45 weight percent of the recycled high-density polyethylene.

8. The high-density polyethylene blend of Claim 7 which has an ESCR of at least 30 hours as measured according to ASTM D 1693-13, Condition B, with at 10% surfactant in water; or which has a melt strength of at least 8.5 cN; or which has the ESCR of at least 30 hours and the melt strength of at least 8.5 cN.

9. The high-density polyethylene blend of any one of Claims 1 to 8 which contains at least 70 weight percent recycled high-density polyethylene.

10. The high-density polyethylene blend of any one of claims 1-9 wherein the virgin bimodal high-density polyethylene (HDPE) copolymer comprises from 22.5 weight percent (wt%) to 29.4 wt% of a higher molecular weight HDPE copolymer component (HMW copolymer component) and from 77.5 wt% to 70.6 wt%, respectively, of a lower molecular weight HDPE copolymer component (LMW copolymer component), wherein the copolymer has each of properties (a) to (g):

(a) a density from 0.940 g/cc to 0.956 g/cc;

(b) a flow index (I_{21}) from 25.0 g/10 min.to 40.0 g/10 min.;

(c) a ratio of Mw/Mn from 12 to 18 or a ratio of Mz/Mw of 15.0 to 17.0 or both ratios, wherein Mw is weight-average molecular weight and Mn is number-average molecular weight

and Mz is z-average molecular weight, all measured by Conventional Gel Permeation Chromatography (GPC);

(d) a melt strength of at least 9 centinewtons (cN), measured at 190° C. by Melt Strength Test Method;

(e) the ratio of low shear viscosity to high shear viscosity ($\eta_{0.1}/\ \eta_{100}$) from 40 to 100, measured according to Shear Viscosity Determination Method;

(f) an environmental stress cracking resistance (ESCR) greater than 300 hours, measured according to ASTM D1693-15, Method B (10% Igepal, F50); and

(g) a timed die swell (time to reach 25.4 cm diameter) at a shear rate of 300 per second (s^{-1}) from 23 seconds to 27 seconds or a timed die swell (time to reach 25.4 cm diameter) at a shear rate of 1000 s^{-1} of 8.3 to 8.8 seconds or both; and

wherein the wt% of the HMW copolymer component and the wt% of the LMW copolymer component are based on the total weight thereof.