Claims

1. A process for hydraulic conveying of pellets of polyolefins, wherein the polyolefin is a copolymer of ethylene having a density of 915 kg/m^3 or less, comprising the steps of: (i) extruding molten polyolefin into strands and cutting the strands into pellets in an underwater pelletiser; (ii) withdrawing a first pellet suspension stream from the underwater pelletiser; (iii) concentrating the first pellet suspension stream in a first pellet separator thereby producing a concentrated pellet stream and a first water stream substantially free of pellets and passing the first water stream back to the underwater pelletiser; (iv) passing the concentrated pellet stream to a hydraulic conveying line through a first vessel and mixing it with water thereby producing a second pellet suspension stream; (v) withdrawing the second pellet suspension stream from the first vessel and passing it to a second pellet separator; and (vi) separating the pellets from water in the second pellet separator thereby creating a second water stream and a dry pellet stream and passing the second water stream back to the first vessel; characterised in that any one of (1) the first pellet suspension stream, (2) the second pellet suspension stream or (3) the dry pellet stream comprises an antiblock, wherein the antiblock is silica.

2. The process according to claim 1 wherein the antiblock is fed as a dispersion to at least one of (1) the first pellet suspension stream or (2) the second pellet suspension stream.

3. The process according to claim 2 wherein the antiblock is fed to water and the water contains from 2 to 10 % by weight of the antiblock, or from 2 to 5 % by weight of the antiblock, based on the weight of the water.

4. The process according to claim 1 comprising the additional step of (vii) passing the dry pellet stream to a blender or to a classifier.

5. The process according to claim 4 comprising the additional steps of: (viii) withdrawing multiple streams of pellets from heights of the blender which are different from each other; (ix) passing the pellets to a water stream thus forming a third pellet suspension stream; and (x) returning the third pellet suspension stream to the step (vi) of separating the pellets from the water.

6. The process according to claim 5 comprising the additional step of: (ix-a) passing the pellets to a second vessel containing water and mixing them in the presence of water thereby creating a third pellet suspension stream; and (x) returning the third pellet suspension stream to the step (vi) of separating the pellets from the water.

7. The process according to claim 1 comprising the step of cooling at least one of the first water stream and the second water stream.

8. The process according to claim 7 comprising the step of cooling at least one of the first water stream and the second water stream to a temperature within the range of from 10 °C and 30 °C; and wherein the polyolefin is a copolymer of ethylene having density of not more than 900 kg/m^3.

9. The process according to claim 7 comprising the step of cooling at least one of the first water stream and the second water stream to a temperature within the range of from 30 °C to 70 °C, or from 30 °C to 50 °C; and wherein the polyolefin is a copolymer of ethylene having density greater than 900 kg/m^3.