Claims:

1. Process for operating a vertical fixed bed degasser which is continuously fed with an active polymer powder produced by a catalytic olefin polymerisation process in a polymerisation reactor wherein

- the polymerisation conditions in the degasser are such that there is produced an additional amount of polymer corresponding to between 0.001 and 0.015 times the amount which entered the degasser,
- the degassing process comprises the introduction into said degasser of a stripping gas comprising from 5 to 60% by volume of principal monomer, preferably ethylene,
- the gas exiting the degasser is depleted in principal monomer before its recycling as stripping gas, and
- the degassing conditions are selected such that the temperature inside the degasser is maintained within a range of temperatures comprised between the polymerisation reactor temperature plus or minus 20 degrees centigrade.

2. Process according to claim 1 wherein the degassing process comprises the introduction into said degasser of at least one polymerisation deactivating agent and the selection of the degassing conditions comprises the control of the content of the said deactivating agent.

3. Process according to claim 2 wherein the deactivating agent is selected from oxygen, carbon monoxide, carbon dioxide, water, or any mixture thereof.

4. Process according to claim 3 wherein the deactivating agent is water.

5. Process according to any of the preceding claims wherein the degassing process comprises a control based on the principal monomer content in the degassing vessel.

6. Process according to any of the preceding claims wherein the degassing process comprises a control based on the total pressure at the top of the degassing vessel.

7. Process according to any of the preceding claims wherein the degassing process comprises a control based on the polymer residence time inside the degassing vessel.

8. Process according to any of the preceding claims wherein the catalyst used in the upstream polymerisation reactor process is a metallocene-type catalyst, a Ziegler-Natta type catalyst, or a chromium oxide type catalyst.

9. Process according to claim 8 wherein the_catalyst is a chromium oxide type catalyst.

10. Process according to claim 8 wherein the_catalyst is a Ziegler-Natta type catalyst.

~~11. Process according to any of the preceding claims wherein the gas exiting the degasser is depleted in principal monomer before its recycling as stripping gas.~~

11~~12~~. Process according to any of the preceding claims wherein the principal monomer is ethylene or propylene, preferably ethylene.