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(54) Title: PROCESS FOR THE DEGASSING OF POLYMER POWDER

(57) Abstract: The present invention provides a process for the production of a degassed polymer powder, which process comprises a) feeding i) a principal monomer, and ii) one or more comonomers fed in an amount of at least 5000ppmw relative to the principal monomer feed rate, and iii) optionally one or more added alkanes having 2 to 10 carbon atoms, fed in an amount of at least 1000ppmw relative to the principal monomer feed rate; into a polymerisation reactor wherein the monomer and comonomers react to form a polymer comprising residual hydrocarbons comprising one or more hydrocarbons having 3 to 10 carbon atoms, and b) passing the polymer to a degassing step wherein it is contacted with a purge gas to remove at least some of the residual hydrocarbons, characterised in that: 1) the G/P ratio in the degassing step is higher than a minimum G/P ratio, G being the purge gas mass flow rate in the degassing step and P being the polymer throughput of the degassing step, and 2) the purge gas has a concentration of critical hydrocarbon component which is lower than a maximum concentration of said critical hydrocarbon component in the purge gas, the critical hydrocarbon component being the heaviest hydrocarbon component selected from (i), (ii) and (iii) fed in step (a), which minimum G/P ratio and maximum concentration of said critical hydrocarbon component in the purge gas have been calculated based on the absorption coefficient, Kh, for the polymer powder to be degassed.



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