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(54) Title: SLURRY PHASE POLYMERISATION PROCESS

(57) Abstract: A polymerisation process is disclosed in which polyethylene is produced in slurry in a polymerisation reactor in the presence of a Ziegler Natta catalyst and an activator, and slurry containing the polymer is withdrawn from the reactor and transferred to a flash tank operating at a pressure and temperature such that at least 50mol% of the liquid component of the slurry is withdrawn from the flash tank as a vapour and at least 98mol%, more preferably at least 98.5mol%, and most preferably at least 99.5mol%, of the vapour withdrawn from the flash tank is capable of being condensed at a temperature of between 15 and 40C without compression, wherein a by-product suppressor, which reduces the amount of by-product formed per unit of polyethylene produced by at least 10% compared with an identical polymerisation process where the by-product suppressor is not present, is used in the reactor.



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