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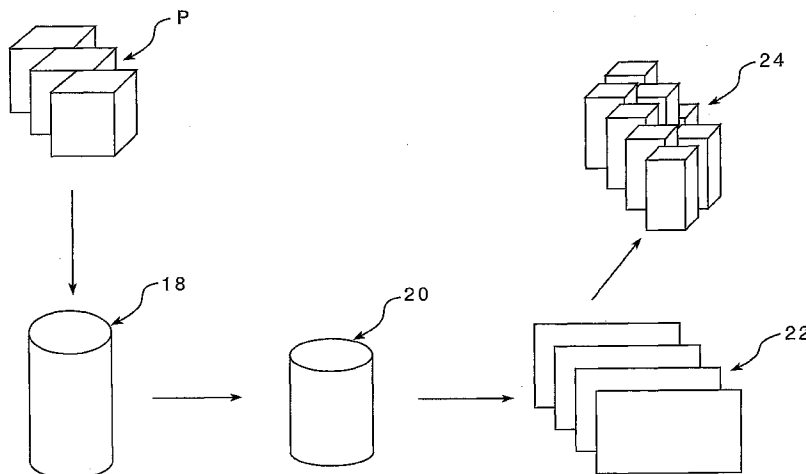
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(54) Title: PROCESS FOR PROCESSING EXPANDABLE POLYMER PARTICLES AND FOAM ARTICLE THEREOF



(57) Abstract: ABSTRACT OF THE DISCLOSURE Process for processing expandable polymer particles e.g. polystyrene (EPS) that eliminates the maturing step between the pre-expander and molding steps. The expandable particles are first over pressurized with gas, e.g. air, carbon dioxide, nitrogen, and mixtures thereof, at a pressure between 500 and 8000kPa and a temperature between -20°C and 130°C for 15 to 7200 minutes to create a gas pressure in the particles. Using the gas pressure in the particles, pre-expanding the particles with a heating medium, e.g. steam at a temperature between 100°C and 120°C and at a pressure ranging above atmospheric pressure and below the gas pressure in said particles, i.e. 50 to 200kPa for 5 to 120 seconds. The pre-expanded particles are air dried in the pre-expander while holding a positive pressure in the particles; are optionally transferred to a pressure silo; and then are transferred to a molding machine where the gas pressure in the particles is used to form a foam article.

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