

## The Development of Structural Process Flow Scheme for Obtaining Polymer Products under Pressure in Solid Phase

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**Abstract:** The structural process flow scheme of forging in solid phase was developed. It is described by ultra-high molecular polyethylene example, which allows creating polymer products with the ability to improve their performance properties. This process is based on the principle of solid-phase products formed under pressure. It is suggested instead of traditional methods of hot pressing and mechanical cutting, and is easily implemented on existing equipment of polymer production companies. The paper presents an assessment of duration and power consumption for technological cycle of ultra-high molecular polyethylene products with proposed method and the specific energy consumption of the process.

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