

Resource-Saving Technology of Processing Waste Polymer Materials

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Key words and phrases: process; recycle; recycling; rollscrew assembly; wastes of polymers.

Abstract: The paper studies the existing methods of polymeric waste treatment; their advantages and disadvantages are discussed. The problem of the development of technological process and equipment for recycling of plastic waste is considered and solved. Experimental studies to determine the influence of technological parameters of process of processing of a wide class of polymeric waste on their qualitative indicators are carried out. The optimal parameters of polymers waste treatment on roller auger-type device are calculated. In the course of experimental studies the values of specific power consumed for the production of 1 kg of products are analyzed, and comparison with the existing technologies of processing waste polymers is made. It is noted that the use of the developed technology and equipment enables to significantly decrease the cost of energy for polymeric waste treatment, and hence reduce the cost of the resulting secondary material, which can be used to obtain technical products.
