COMPOSITION CONSTRUCTION MATERIALS ON THE BASIS OF WASTES OF POLYETHYLENE

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Every year according to the statistic data polymer wastes within the range of 25-30% of produced polymer materials are formed in the world. If not to take the corresponding measures then wastes of polymer materials will create the serious ecological problem. The utilization of wastes of polymer materials are usually carried out in the following directions:

1. Repeating reprocessing or use in creation of composition materials;
2. Thermal treatment with preparation of purposeful products of decomposition;

In all cases from economical, technical and ecological point of view the creation of new composition-construction materials on the basis of wastes of polymer materials is the most advisable.

In this work the results of investigations on preparation of composition materials on the basis of wastes of polyethylene and mineral fillers with addition of bentonite as plasticizer are presented. It has been established that in adding of definite quantity of brick dust, oxides of some metals, coquina flour, crushed wastes of some industrial catalysts, etc. to crushed waste of polyethylene on rolls heated to 150-160°C it may be prepared the composition-construction materials with various physical-mechanical properties.

It will be considered that many of taken mineral additives are also industrial wastes. Changing the quantity of mineral additives within the range of 5-50% weight, and plasticizers in 5-10% the wide assortment of composition materials being of practical interest in making of pipes, tares, details of sewer systems and other goods may be prepared.