UDK 621.798 OVERVIEW OF ECO-FRIENDLY PACKAGING MATERIAL

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The most common packaging material is polymeric wrapping material. Currently, there are 12 main groups of synthetic polymeric materials. Due to the reliable protection of the product from contamination, damage, decomposition and because of the cheapness of raw materials and low energy intensity of production their use has been considerably increased in recent years. In addition to a number of advantages, synthetic materials have a number of disadvantages. The intensive growth in the use of polymer packaging leads to a dramatic increase in the amount of waste, the traditional methods of handling which are not always justified from an environmental and economic point of view. The packaging industry is interested in obtaining polymers that retain their packaging characteristics during use and then, by undergoing physico-chemical and biological changes, are turned into low-molecular compounds. These polymers include biodegradable plastics that are made from starch, PLA, PHA, cellulose and lignin. It is predicted that the production of bio-based polyethylene will continue to grow. Bioplastics are used in various domestic and industrial sectors. Europe is considered to be the first in the field of bioplastics research and development but the major manufacturing center is Asia. Today, bioplastics are more expensive than traditional oil-based plastics because of the complex manufacturing process [1].

Biodegradable packaging materials have an expanding range of potential applications, largely due to the perception that they are "environmentally friendly".

References

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