additives. Then cross-linking via radical copolymerisation with styrene in the presence of the initiators took place at room temperature. In this way we obtained one-layer composites containing 25% w/w of glass, two-layer composites having 35% w/w of glass and three-layer composite with 45% w/w of glass. Thus obtained composites exhibited tensile strength within the range of 25 - 124 MPa, depending on the number of glass layers and molar ratio of NCO/OH groups used in the synthesis of unsaturated PEEUR.

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INFLUENCE OF POLYMER PACKAGING DEGRADATION PRODUCTS ON THE GROWTH OF CYAN BACTERIA TOXIC POPULATION OF BALTIC SEA

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As a "future" approach, several new polymeric materials have been recently synthesized and introduced to the global market; materials which are susceptible onto biodegradation process as an environmentally friendly way of waste decomposition.

The paper was devoted into investigation of the growth of cyan bacteria toxic population of Baltic Sea in the presence of new biodegradable polymer packaging. From known literature review is not stated if and up to what extend biodegradable polymers will influence the marine biological life.

For that reason such research was undertaken to provide the knowledge to be considered in LCA of biodegradable polymers.

Different types of polycaprolactones in the form of stripes were tested (unmodified Capa 680 with M_W=80000G, Capa 680 modified with calcium carbonate: 60% PCL/40% CaCO3 and Capa 680 modified with starch: Mater-Bi Z) before and after incubation (up to 6 months) in marine water (laboratory conditions) in the presence of cyan bacteria. Moreover polymer biodegradation tests in sterilized marine water and in the presence of cyan bacteria were also performed. The following polymer data were analyzed and compared: weight, mechanical properties and surface view. From the experiment' results it is clear that in each of analyzed environments biodegradation of tested samples took place. During the incubation of tested material in marine water cyan bacteria adhered into polymer surfaces and their growth were stimulated.

We have not found any distinctive differences in the bacteria growth rate in the presence of polymer material studied; so the material studied looks to be friendly for cyan bacteria life. Implicatively the same situation would be observed in natural marine environment.

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ХЕМОСОРБЦІЯ H_2S НА БЕНТОНІТІ МОДИФІКОВАНОМУ ХЛОРИДОМ МІДІ (II)

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