

Polyurethane resins filled with inorganic waste particles

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Polyurethane resins belong to a group of polymers which can be easily filled with inorganic particles. Filling of the polymeric materials, either with particles or fibres, influences resulted properties of the arisen material – composite. The particle fillers can improve a wear resistance, they can optimize tensile characteristics and reduce the polymer price. The paper describes the polyurethane resin as a material recycling bearer of the waste inorganic particles of the corundum, the artificial garnet and the silicon carbide. The experiment results certified that the mutual interaction of stated phases creates the wear resistant material which can be used owing to the polyurethane elasticity in the sphere of a cementing or at creating the material surface layers.

Keywords: abrasive wear, deformation, hardness, recycling

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