Influence of bonded abrasive particles size on wear of polymeric particle composites based on waste

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Experiments described in this paper determine two body abrasion of two- and three-phase polymeric particle composites with a different size of filler particles. An epoxy resin was the matrix of composite systems, corundum and chips of iron metals represented the filler created from secondary raw materials. The results show clear influencing of composite hardness and abrasive wear resistance caused by the fillers. The influence of the size of bonded abrasive particles on the wear of the composites based on the waste was proved and it is noticeable – with tested abrasive clothes it is 65 times.

Keywords: composite system, secondary raw materials, wear

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