Analysis of the Composition of Selected Inserts Using Electron Microscopy

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Using of cutting inserts is currently a normal part of the manufacturing process. The article deals with structural analysis and material selection of inserts for turning. Analysis of the composition of experimental inserts was made by electron microscopy, namely EDS analysis. EDS analysis is an analysis using an energy dispersive spectrometer. For this purpose was used EDS analyzer Bruker 16 which is part of a scanning electron microscope Tescan Vega 3. These analysis can provide a good picture of the structure and construction of inserts and their composition. This may assist in finding suitable cutting conditions. These analyzes were performed in other experiments performed at the Faculty of Production Technology and Management at Jan Evangelista Purkyně University in Ústí nad Labem.

Keywords: The cutting insert, chemical composition analysis, EDS

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