Tool Wear and Machinability of Wood-based Materials during Machining Process

Eva Šebelová, Josef Chladil
Department of Furniture, Design and Habitat, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic.
eva.sebelova@mendelu.cz

The article is focused on the machinability classification of wood-based materials resulting from experimental work targeted on the wear procedure of cutting edge. These types of materials are not currently classified into groups of machinability. Two representatives of the materials - laminated chipboard (DTD-L) and medium density fibreboard (MDF) were tested in the project. The process of material classification from the view point of machinability is well processed in engineering materials contrary to materials from wood processing. Experimental measurements were based on the determination of the radial tool wear. Tested materials were included according to achieved results in the material groups and their relevant classes. One of the most important classification indicators was the index of kinetic machinability K_V. Material DTD-L has been selected as a reference sample - standard as the material most often used in woodworking industry.

Key words: machinability, tool wear, life-time, class of machinability.

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