Classification of Hungarian aggregates for railway ballast according to EN 13450: 2002

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Hungary has accepted the new European Standard for Aggregates for Railway Ballast (EN 13450: 2002) in June 2003. The European Committee for Standardization allowed the members to determine their own limit values. The norm contained a new examination method, the Micro-Deval method, for railway ballast aggregates, which was previously not a common practice in Hungary. The present paper shows the test results of existing Hungarian quarries producing aggregates for railway ballast. The laboratory experiments were aimed to determine the correct limit values for Hungary according to the newly accepted European Standard. The tested stones included andesites, basalts, dolomites and various limestones. The results of the tests have shown that Hungarian raw materials show significant varieties and Micro-Deval values have a large range. Based on the test results the Hungarian aggregates were grouped into four classes according to their potential use as railway ballast. For each class limit values and recommended maximum velocities for permanent railways were determined. The research also tried to find relations between the old and new testing methods of aggregates. There were no unequivocal relationship between the old and new test results, thus all of the methods are required to characterise aggregates for railway ballast.