

# Utilization of the waste from the marble industry for application in transport infrastructure: mechanical properties of cement pastes

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**Abstract.** This article is focused on the mechanical testing of cement-based samples containing a micronized waste marble powder used as replacement of standard binders. Tested materials consisted of cement CEM I 42.5 R (Radotín, Czech Republic) and three different amounts of the marbles (25, 50 and 70 wt. %). Standard bending and compressive tests of the prismatic samples having dimensions equal to 40 × 40 × 160 mm were done in order to reveal an influence of marble amount on flexural and compressive strength, respectively. Moreover, the dynamic modulus of elasticity and dynamic shear modulus were examined and compared after 7 and 28 days of mixture curing.