



Limestone and a dolomitic limestone, differences in fabric and aggregate properties

Á. Török

Budapest University of Technology and Economics, Department of Construction Materials and Engineering Geology, H-1111 Budapest, Stoczek u. 2, Hungary, torokakos@mail.bme.hu

Limestones are commonly used as aggregate in Hungary. The paper focuses on the physical properties and its relationship to fabric of two mesozoic limestone types, both occurring in Villány Mountains, South Hungary. The middle Triassic Muschelkalk-type dolomitic limestone shows some variety in fabric and color. The predominant fabric is mudstone/wackestone. Stylolitic veins and calcite fissures are also common features. The limestone is partly dolomitized. Dolomite forms irregular mottles, which are characterized by scattered dolomite rhombohedrons to xenothopic dolomites or it occurs in the forms of dolomitic veins. It has a low water absorption 0.66% in average. The other studied limestone is a Jurassic compact limestone with micro-oncoidal packstone to grainstone fabric. The limestone is also dissected by red stylolites and transparent to white calcite filled fissures. Its water absorption is nearly half of the Triassic limestone, with mean values of 0.34%. The Triassic limestone has lower Los Angeles and micro-Deval loss than that of the Jurassic limestone. The differences between wet and dry values show the opposite trend, since micro-Deval tests of wet samples of the Jurassic limestone are slightly better than that of the dolomitic Triassic limestone. When Na-sulphate and Mg-sulphate crystallization tests were applied the aggregates made of Jurassic limestone had better values, indicating the different effect of salt crystallization on various fabrics.