

The Investigation of the Physico-Mechanical Properties of Iscehisar (Afyonkarahisar) Marbles

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Iscehisar marbles located within Afyonmetasedimenter rocks are found as two lenses in approximately 3.5 km KD of Iscehisar district. Iscehisar Marble is very important in terms of marble sector of our country. Iscehisar Marbles processing BC 3000 began in the Roman Empire period, especially after the 1980s as a result of the development of technological development of marble production has been observed in the region. Iscehisar Marbles are located in the form of lenses in the schists in the north east of Afyonkarahisar province. The basement rocks of the region consist of Paleozoic aged schists. Iscehisar Marbles are located on these basement rocks. According to the difference in colour and texture, the production of marble types known as Kaplan, Gray, Violet, Honey and Sugar is performed.

In the scope of the study, unit volume weight (%), apparent density (%), water content (%), water absorption (%), porosity (%), void ratio (%), ultrasonic (m / and resistance (%). In addition, mechanical tests such as uniaxial compressive strength (MPa), point loading, bending strength, abrasion resistance and mass after freeze-thawing and pressure loss test were performed on samples representing marble levels. According to the physico-mechanical findings obtained, Iscehisar marbles are suitable to be used as floor stone and covering stone in indoor and outdoor areas according to TS EN 1910, TS EN2513 and TS EN 10449 test standards.

Biography:

MetinBađcı is a Asistant Professor in the Department of Geological Engineering, Engineering Faculty at the Afyon Kocatepe University. He completed his undergraduate and Ph.D. at Suleyman Demirel University. His research is engaged in areas such as mineralogical petrographic and geochemical features of marbles. He still teaches geology lessons at engineering faculty and works on marble projects. He is married and has two children.