

Mineralogical and Petrographical properties of Aslanapa Marble from Kütahya Turkey

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Aslanapa is located 39 km southwest of Kütahya. In the north-western part of the Tauride-Anatolian Block, marble beds showing different color, texture and pattern characteristics are observed in the between Aslanapa, Çavdarhisar and Altıntaş (Kütahya). The Palaeozoic aged Afyon Metamorphics are the oldest rocks in the study area. Afyon Metamorphics are composed of schists, quartzites and marbles. Ophiolitic rocks are settled on tectonic contact over the basement rocks. The ophiolites are formed by the closure of the northern part of the Tethys. The Jura-Cretaceous gabbroic limestones are unconformably overlain on the lower units. The Miocene-Pliocene lacustrine limestones and terrestrial clastics are located on the lower units.

In these quarries mostly white colored and yellow-green and violet veined marbles types are produced. In the scope of the study, the detailed geological, mineralogical, petrographic and physical features of these marbles produced were tried to be determined. Polarizing microscope and X-ray diffractometer (XRD) analysis techniques were used in the mineralogical studies. As a result; different mineral compositions were determined in marbles as; Quartz + Calcite in yellow veined marble, Mica + Calcite in green veined marble and Opaque Mineral + Calcite + Chlorite in violet vein marble.

Biography:

Metin Bağcı is an Assistant 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.