

**Istanbul Technical University
Mining Engineering Faculty
Department of Geological Engineering**

**Ağazağa Yerleşkesi, Maslak 34469 İstanbul
Phone: +90 (212) 2856215 Fax: +90 (212) 2856215**

The place of the stone quarry: Kırklareli, Vize, Location of Soğucak Village
The trade name of the stone: Soğucak Küfeki

The Results of the Laboratory Experiment and Analysis

Physical and Mechanical Experiments

Rigidity	(Mohs)	2-3
Volume weight per unit	(gr/cm ³)	Dry: 2,25 Saturated: 2,37
Water saturation regarding the weight	By weight (%)	5,15
Porosity	(%)	11,6
Pressure Resistance before Freezing	(kgf/cm ²)	593
Pressure Resistance after Freezing	(kgf/cm ²)	575
Shock Resistance	(kgf.cm/cm ³)	10,8
Bending Strength	(kgf/cm ²)	187,7
Erosion Resistance	(cm ³ /50 cm ²)	61.07
Freezing Resistance regarding the weight	(%0)	0,22

The standard of the experiment: TS 699 (2000)

Chemical Analysis

Component	%
SiO ₂	1,08
Al ₂ O ₃	0,16
Fe ₂ O ₃	0,10
CaO	54,97
MgO	0,67
LOI	42,91

The results of the chemical composition of the natural stone are according to the XRF Analysis.

Petrographic description

After examining the thin sections of the natural stone under the polarizing microscope, we have seen that the sample is composed of calcite minerals in mono-minerals and mostly in same-granule dimension. There is some small amount of micro fossils and shell traces in the carbonate matrix.

The sample of the natural stone is named as “micrit limestone with micro fossils” according to the characteristics mentioned above.

O. Serkan ANGI

4 May 2011

Ass. Prof. Yılmaz Mahmutođlu