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32260 ISPARTA

ELMAS MARBLE COMPANY

**DAZKIRI WALLNUT
PHYSICO-MECHANICAL PROPERTIES**



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PHYSICO-MECHANICAL PROPERTIES OF DAZKIRI WALLNUT

Hardness	(Mohs)	3
Dry unit volume weight, (density)	(gr/cm ³)	2,50
Specific gravity of solid part	(gr/cm ³)	2,74
Water Absorption at atmospheric pressure;		
by weight	(%)	0,7
by volume (apparent porosity)	(%)	1,75
Real porosity, (total porosity)	(%)	8,76
Compressive strength	(kg/cm ²)	840-940 (82-92 MPa)
Flexural (bending) strength	(kg/cm ²)	150 (14,7 MPa)
P-Wave velocity	(m/s)	4400-5000
P-Wave velocity after freezing	(m/s)	3300
Change in P-Wave velocity	(%)	30
Compressive strength after freezing	(kg/cm ²)	650
%Strength decrease after freezing	(%)	27
% Loss of weight after freezing (Frost resistance)	(%)	0.89 No alteration
Resistance to wear by abrasion, Bohme method DIN 52108	(cm ³ /50cm ²)	9
Salt crystallization test, % weight loss	(%)	0,6

To whom it may concern;

The physico-mechanical analysis on **DAZKIRI WALLNUT** is carried out according to the specifications laid out in;

EN-11143 (TS 11143) for travertines

EUROPEAN STANDARD EN 1936 Natural stone test methods – Determination of real density and apparent density, and of total and open porosity

DIN EN 12670 Naturstein Terminologie

EUROPEAN STANDARD EN 1925 Determination of water absorption.

EUROPEAN STANDARD EN 1926 Determination of compressive strength.

EUROPEAN STANDARD EN 12371 Determination of frost resistance

EUROPEAN STANDARD EN 12372 Determination of flexural strength

EUROPEAN STANDARD EN 12407 Petrographic examination

DIN EN 13161, DIN EN 13364,

TS EN 1467 “Natural rocks – blocks – Properties

DIN EN 12440

EUROPEAN STANDARD prEN 14146 Determination of the dynamic modulus of elasticity by P-wave velocity

DEUTSCHE NORM DIN 52 104 Testing of natural stone Freeze-thaw cyclic test.

ASTM DESIGNATION C 97-99 The American Society for testing and Materials. Determination of natural stone properties.

TURKISH STANDARD T.S.E (Standard institution of Turkey) 699-1910-2513. For natural stones

EN 12370 Determination of Resistance to Salt Crystallisation, According to Ross and Butlin its ClassA rock (%0,6)

DIN EN 13755

DIN EN 52106

25/08/ 2008

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