Mechanical and physical properties

Development of natural stone educational and research environment in East Finland
2007

Standard	Test	Producer: Finska Stone: Baltic Brown Ylämaa
EN 13755	Water absorption (%) mean value	0,13
	Standard deviation (%)	0,02
EN 1936	Apparent Density (kg/m3) mean value	2680
	density from ... To ...(kg/m3)	2670 to 2690
	Standard deviation(kg/m3)	8
EN 1936	Open porosity (%) mean value	0,35
	standard deviation (%)	0,06
EN 12372	Flexural strength (MPa) mean value	18,4
	Standard deviation(MPa)	2,8
	Min exp value(MPa)	5,4
EN 12371	Flexural strength after frost (MPa) mean value	10,7
	Change in mean flexural strength after 48 cycles (%)	41,8
	Standard deviation(MPa)	3,3
	Min exp value(MPa)	4,7
EN 1926	Compression strength (MPa) mean value	173
	Standard deviation(MPa)	9,4
	Min exp value(MPa)	152
EN 12371	Compression strength after frost (MPa) mean value	187
	Standard deviation(MPa)	4,3
	Min exp value(MPa)	177
EN 1925	Water absorption by Capillarity C ($g/m^2s^{0,5}$) mean value	0,365
	Standard deviation($g/m^2s^{0,5}$)	0,096
EN 14231 and CE standards of reference	Skid resistance - dry polished mean value	56,7
	Skid resistance - wet polished mean value	10,1
	Skid resistance - dry honed mean value	53,4
	Skid resistance - wet honed mean value	35,6
EN 14157 and CE standards of reference	Abrasion resistance (mm) mean value	17
EN 13364	Resistance at the anchoring system Mean breaking Load(N)	2600
	Min exp value (N)	1780
	Standard deviation (N)	400
	d1(mm)	10,4
	bA(mm)	41,1
EN 14066	Resistance to Thermal shock	
	visual changes	yes colour
	max Mass change (%)	0,06
	max res. Freq. change (%)	10,2
EN 1925	Water absorption by Capillarity C ($g/m^2s^{0,5}$) parallel mean value	no directions
	Standard deviation	
EN 12524	water vapour resistance factor μ dry	10000
	water vapour resistance factor μ wet	10000

Tests performed by GTK in Stone Pole Oy laboratory facilities, Juuka Finland

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