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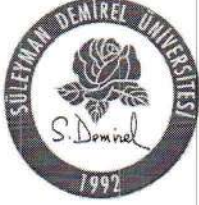
NATURAL STONE TECHNOLOGY LABORATORY  
32260 ISPARTA

**TECHNICAL REPORT**

The physical, mechanical and petrographic properties in accordance with TS EN standards of the marble samples called as "Lmyra" belongs to Adalya Marble Industry Trade Inc.

**June – 2015**  
**ISPARTA / TURKEY**





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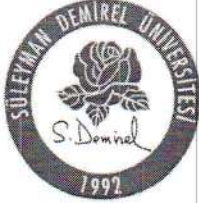
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## PREFACE

Various laboratory tests were applied in accordance with TS EN standards to determine the physical and mechanical properties and petrographic descriptions of marble samples called as “**Lmyra**” belongs to **Adalya Marble Industry Trade Inc.**. The results of tests are presented in Tables. 02 / 06 / 2015







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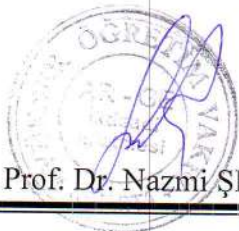
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Company Name : Adalya Marble Industry Trade Inc.

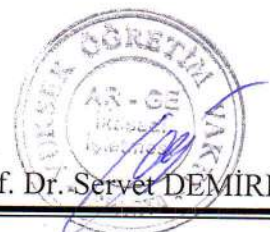
Commercial Designation of Sample : Lmyra

Date: 02 / 06 / 2015

PHYSICAL AND MECHANICAL PROPERTIES					
	Metric System		SI System		Standard
Hardness	Mohs	3.5 - 4	Mohs	3.5 - 4	TS 6809
Bulk Specific Gravity					
Dry	g/cm <sup>3</sup>	2.532 ± 0.022	kg/m <sup>3</sup>	2532 ± 22	TS EN 1936
Saturated	g/cm <sup>3</sup>	2.580 ± 0.016	kg/m <sup>3</sup>	2580 ± 16	
Density	g/cm <sup>3</sup>	2.693 ± 0.013	kg/m <sup>3</sup>	2693 ± 13	TS EN 1936
Water Abs. at Atm. Press.					
by Volume	%	4.800 ± 0.67	%	4.800 ± 0.67	TS EN 13755
by Weight	%	1.897 ± 0.28	%	1.897 ± 0.28	
Effective Porosity	%	4.80	%	4.80	TS EN 1936
Real Porosity	%	5.95	%	5.95	TS EN 1936
Fullness Ratio	%	94.05	%	94.05	TS 699
Water absorption coefficient by capillarity	g/m <sup>2</sup> .s <sup>0.5</sup>	6.8 ± 0.5	g/m <sup>2</sup> .s <sup>0.5</sup>	6.8 ± 0.5	TS EN 1925
Compressive Strength	kg/cm <sup>2</sup>	884 ± 99	MPa	86.7 ± 9.7	TS EN 1926
Compressive Strength after Freeze-Thaw (12 cyc.)	kg/cm <sup>2</sup>	829 ± 119	MPa	81.3 ± 11.7	TS EN 12371
Changing of Compressive Strength after Freeze-Thaw (-)	%	6.21	%	6.21	TS EN 12371
Decreasing of Weight after Freeze-Thaw	%	0.008	%	0.008	TS EN 12371
Flexural Strength Under Concentrated Load	kg/cm <sup>2</sup>	90 ± 11	MPa	8.8 ± 1.1	TS EN 12372
Changing of Flexural Strength after Freeze-Thaw (-) (12 cyc.)	kg/cm <sup>2</sup>	83 ± 14	MPa	8.1 ± 1.3	TS EN 12371
Changing of Flexural Strength after Freeze-Thaw (-)	%	7.56	%	7.56	TS EN 12371
Resist. to ageing by thermal shock					
by weight (-)	%	0.015	%	0.015	TS EN 14066
by modulus of elasticity (-)	%	17.32	%	17.32	
Water vapour resistance factor (dry)	μ-value	236	μ-value	236	TS EN 12524
Thermal conductivity (λ)	W/m.K	2.28	W/m.K	2.28	TS EN 12524 (Thermal resist.)
Abrasion Strength (Method-B/Bohme)	cm <sup>3</sup> /50cm <sup>2</sup>	15.6 ± 0.7	cm <sup>3</sup> /50 cm <sup>2</sup>	15.6 ± 0.7	TS EN 14157
Slip Resistance					
Dry	SRV	57.2 ± 0.7	SRV	57.2 ± 0.7	TS EN 14231
Wet		51.9 ± 1.0		51.9 ± 1.0	
P-Wave Velocity	m/s	5059 ± 76	m/s	5059 ± 76	TS EN 14579



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