European Ceramics

CHINCHILLA STONE RANGE

Product Name: **CHINCHILLA - VARIOUS FINISHES – CROSS OR VEIN CUT**

Product Identifier: Refer to tile name and product code on paperwork/packaging

Product Description: Natural Stone Marble

Country Of Origin: Turkey

Building Code Obligations

Code Clauses:
B2 – Durability
B2.3.1
C3 – Fire affecting areas beyond the source
D1 – Access routes
D1.3.3
E3 – Internal moisture
E3.3.2, 3.3.3, 3.3.4
G3 – Food preparation and prevention of contamination
G3.3.2
G6 – Airborne and Impact sound
G6.3.1

Note – this building product is not subject to a warning/ban under section 26 of the Building Act 2004

Manufacturer Details:
European Ceramics Approved
BPIR COMPLIANT

Importer Details:
European Ceramic Tiles Ltd
Address: 7A Cowley Place, Rosedale, AKL 0632
NZBN: 9429037294571
Website: euroceramics.co.nz

Scope	Use
B2 Durability	See below suitability table
C3 Fire	The Building Code relating to fire ratings regulation & standards become mandatory from April 2013, establishing the list of products belonging to Classes A 'No Contribution to Fire' provided for in Decision 94/611/EC implementing Article 20 of Council Directive 89/106/EEC.
D1 Access Routes	Refer to slip resistance documentation for all Access routes classifications D1/AS1 for above range.
E3 Internal Moisture	Under E3 Tiles installed over a waterproof membrane using a nonporous grouting system, are an acceptable solution.
G3 Food Preparation & Prevention from Contamination	As an impervious and easy to clean surface, this range complies.
G6 Airborne & Impact Sound	If required, tiles can form part of an acoustic system to comply with IIC & STC in conjunction with an approved third-party system.

Suitability *	***Residential***	***Light Commercial***	***Commercial***
Indoor Floor	*	*	*
Indoor Walls	*	*	*
Outdoor Cladding	*	*	*
Frost Resistant	*	*	*
Swimming Pool Submerged	*	*	*
Swimming Pool Surround	*	*	*
Paving/External	*	*	*
Over Underfloor Heating	*	*	*
Kitchen wall	*	*	*
Within 1.5m of a Plumbing Fixture or Fitting	*	*	*

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Building Code References

B2 – Durability

Compliance with B2 Durability is about providing evidence that the product will meet the relevant durability life in the context of the environment in which it will be located.

The building code sets out the framework for establishing the relevant durability life of building elements based on a number of criteria. B2/AS1 provides a decision tree to establish the relevant durability for common building materials in different circumstances.

Having determined the durability life of the product, the next step is to determine if the product, when exposed to the environment, will continue to perform for the relevant period. A key tool which a product supplier can consider in claiming compliance is limiting the environment in which the product will be exposed to (e.g. a ferrous material used in an indoor environment will last longer than it would when exposed to salt spray — in this example it would be appropriate for the supplier to condition the compliance information to use only in indoor environments).

C3 – Fire affecting areas beyond the source

C3 Fire affecting areas beyond the fire source is primarily about ensuring that fire does not spread from a fire in the building (in both vertically and horizontally) and from an adjacent building.

The prime product attribute used is the fire resistance rating (FRR) methodology. In most cases a product is combined with other products to achieve a FRR (e.g. an external wall fire rating may be formed by the combination of the external cladding, thermal insulation and the internal lining.

C/AS1 and C/AS2 set out performance criteria for buildings and in particular the FRR requirements for various types of buildings and parts of buildings. Appendix C of C/AS2 sets out test methods for the building elements involved in spread of fire. Appendix B of C/AS2 sets out performance criteria for sprinkler systems while Appendix A sets out criteria for fire safety systems such as alarms and hydrants.

D1 – Access routes

For D1 access routes, in most cases product-related compliance for access routes is slip resistance for floors and the shapes/locations etc of handrails. The Acceptable Solution for access D1/AS1 and NZS 4121:2001 provide good information on compliance for products on access routes.

E3 – Internal Moisture

E3 Internal Moisture is about ensuring that moisture created within the building does not lead to mould or create damage to adjacent buildings or structural elements in the building in which it is installed.

Prevention of the creation of mould is a combination of temperature, insulation and ventilation. Prevention of water damaging other building elements is mainly about installation details (i.e. sealing joints) as well as impervious products. E3/AS1 provides some useful design details, albeit without much product material information.

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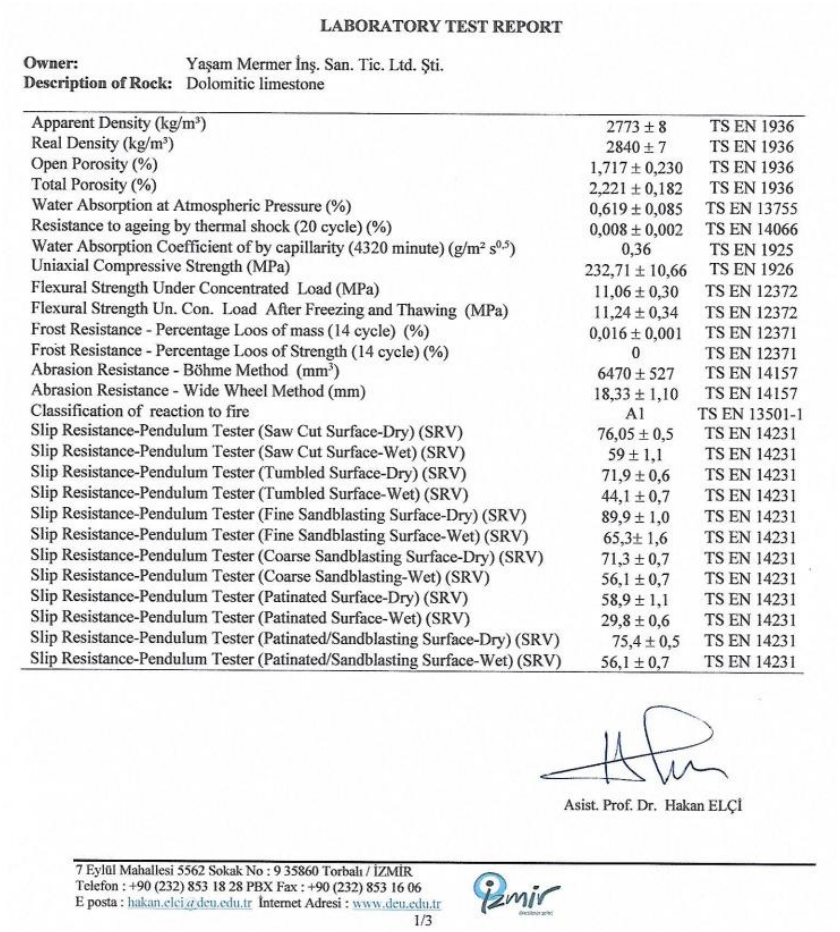
G3 – Food preparation and prevention of contamination
G3 Food preparation and prevention from contamination for a product (such as a kitchen bench) is mainly associated with being easily cleaned and impervious. G3/AS1 provides some general design details for food preparation areas but has no referenced product standards, although the document does state some acceptable materials used for surfaces. Compliance with G3/AS1 is not mandatory but provides a good benchmark for compliance.

G6 – Airborne and Impact Sound
For a product, G6 Airborne and impact sound is generally about systems which are designed to work together to achieve the necessary sound attenuation.

The code itself at G6.3.2 sets a quantifiable performance level: "The Sound Transmission Class of walls, floors and ceilings, shall be no less than 55" and G6.3.2 sets the impact insulation class of floors shall be no less than 55. The Acceptable Solution G6/AS1 sets out the transmission and impact insulation class of common wall systems. G6/VM1 sets out test methodologies where the details do not match those of G6/AS1.

Technical Information

Please contact European Ceramics in regards to specific technical information in regards to this product for your specific project.



LABORATORY TEST REPORT

Owner: Yaşam Mermer İnş. San. Tic. Ltd. Şti.
Description of Rock: Dolomitic limestone

Apparent Density (kg/m³)	2773 ± 8	TS EN 1936
Real Density (kg/m³)	2840 ± 7	TS EN 1936
Open Porosity (%)	1,717 ± 0,230	TS EN 1936
Total Porosity (%)	2,221 ± 0,182	TS EN 1936
Water Absorption at Atmospheric Pressure (%)	0,619 ± 0,085	TS EN 13755
Resistance to ageing by thermal shock (20 cycle) (%)	0,008 ± 0,002	TS EN 14066
Water Absorption Coefficient of by capillarity (4320 minute) (g/m² $s^{0,5}$)	0,36	TS EN 1925
Uniaxial Compressive Strength (MPa)	232,71 ± 10,66	TS EN 1926
Flexural Strength Under Concentrated Load (MPa)	11,06 ± 0,30	TS EN 12372
Flexural Strength Un. Con. Load After Freezing and Thawing (MPa)	11,24 ± 0,34	TS EN 12372
Frost Resistance - Percentage Loos of mass (14 cycle) (%)	0,016 ± 0,001	TS EN 12371
Frost Resistance - Percentage Loos of Strength (14 cycle) (%)	0	TS EN 12371
Abrasion Resistance - Böhme Method (mm³)	6470 ± 527	TS EN 14157
Abrasion Resistance - Wide Wheel Method (mm)	18,33 ± 1,10	TS EN 14157
Classification of reaction to fire	A1	TS EN 13501-1
Slip Resistance-Pendulum Tester (Saw Cut Surface-Dry) (SRV)	76,05 ± 0,5	TS EN 14231
Slip Resistance-Pendulum Tester (Saw Cut Surface-Wet) (SRV)	59 ± 1,1	TS EN 14231
Slip Resistance-Pendulum Tester (Tumbled Surface-Dry) (SRV)	71,9 ± 0,6	TS EN 14231
Slip Resistance-Pendulum Tester (Tumbled Surface-Wet) (SRV)	44,1 ± 0,7	TS EN 14231
Slip Resistance-Pendulum Tester (Fine Sandblasting Surface-Dry) (SRV)	89,9 ± 1,0	TS EN 14231
Slip Resistance-Pendulum Tester (Fine Sandblasting Surface-Wet) (SRV)	65,3± 1,6	TS EN 14231
Slip Resistance-Pendulum Tester (Coarse Sandblasting Surface-Dry) (SRV)	71,3 ± 0,7	TS EN 14231
Slip Resistance-Pendulum Tester (Coarse Sandblasting-Wet) (SRV)	56,1 ± 0,7	TS EN 14231
Slip Resistance-Pendulum Tester (Patinated Surface-Dry) (SRV)	58,9 ± 1,1	TS EN 14231
Slip Resistance-Pendulum Tester (Patinated Surface-Wet) (SRV)	29,8 ± 0,6	TS EN 14231
Slip Resistance-Pendulum Tester (Patinated/Sandblasting Surface-Dry) (SRV)	75,4 ± 0,5	TS EN 14231
Slip Resistance-Pendulum Tester (Patinated/Sandblasting Surface-Wet) (SRV)	56,1 ± 0,7	TS EN 14231

Asist. Prof. Dr. Hakan ELÇİ

7 Eylül Mahallesi 5562 Sokak No : 9 35860 Torbalı / İZMİR
Telefon : +90 (232) 853 18 28 PBX Fax : +90 (232) 853 16 06
E posta : hakan.elci@deu.edu.tr İnternet Adresi : www.deu.edu.tr
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Fire Resistance

The building code relating to fire rating regulations and standards requires specifiers to provide documentation such as fire certificates for materials used in construction.

Ceramics are in itself a fire-resistant material, mostly being manufactured at over 1200 degrees Celsius. Testing and providing such certification are therefore not relevant to the Ceramics industry.

Ceramic and Porcelain tiles are an inert material, and therefore non-combustible. They do not release fumes or toxic gases in the event of a fire. Porcelain tiles contain no sealants, waxes or other chemicals that could release VOC's into the environment. Ceramics do not pose a risk of spreading or intensifying a fire therefore there is no testing required as they do not contribute to a fire.

EXTRAORDINARY EFFECTS DURING USE PHASE:
Fire: According to /EN 13501-1:2007+A1:2009/, ceramic tiles can be classified as A1 class of fire resistance rating, because they do not contribute to fire.
It has been demonstrated that the coating of the ceramic tiles, in case of fire, reduces heat on them and thus the risk of collapse.
Water: Ceramic tiles cannot react with water because they are an insoluble material.

For further information on the physio-characteristics of fire resistance for tiles please refer to the Technical Documents section on euroceramics.co.nz

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