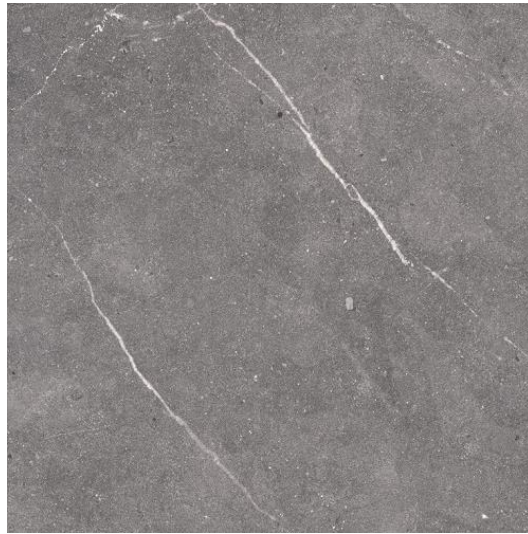


# COSMOS LIGHT GREY POLISHED 600x600



## Class 1 Building Product Information Requirements Self-Assessment

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Product Name: COSMOS LIGHT GREY POLISHED 600x600

Product Identifier: COMLGRP60

Product Description: A glazed porcelain tile with an polished finish and a water absorption rate of less than 0.02%.

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## Building Code Obligations

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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



BPIR COMPLIANT



Scope	Use
B2 Durability	See below Suitability table.
C3 Fire	The Building Code relating to fire ratings regulation and 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	Not acceptable for use under D1/AS1
E3 Internal Moisture	E3 Internal Moisture (AS1 and AS2) 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 about a complete system and installation details (i.e. Compliant and approved Waterproofing and sealing joints) as well as impervious products. E3/AS1 provides some useful design details, albeit without much product material information on compliant systems that meet the durability requirements of B2 that requires 15 years performance and a Producer Statement (PS3) for waterproofing.
G3 Food Preparation and Prevention from Contamination	As an Impervious and easy to clean Surface this range complies
G6 Airborne and Impact Sound	If required Tiles can form part of an acoustic system to comply with IIC and STC in conjunction with an approved third-party system.

Suitability	Residential	Light Commercial	Commercial	Industrial
Indoor Floor	✓	✓	✓	-
Indoor Walls	✓	✓	✓	✓
Outdoor Floor	✓	-	-	-
Outdoor Cladding	✓	✓	✓	✓
Frost Resistant	✓	✓	✓	✓
Swimming Pool Submerged	✓	✓	✓	✓
Swimming Pool Surround	✓	-	-	-
Paving	-	-	-	-
Over Underfloor Heating	✓	✓	✓	✓
Commercial Kitchen Wall	✓	✓	✓	✓
Within 1.5m of a Plumbing Fixture or Fitting	✓	✓	✓	✓

Specifications	
CODE	COMLGRP60
TILE SIZE (mm)	600x600
THICKNESS (mm)	10
SUITABILITY	Floor/Wall
FINISH	Polished
CLASS	PEI Class 4: Moderate to heavy traffic, All residential as well as medium commercial and light industrial.
RECTIFIED	Yes
WEIGHT (kg)	7.75
COEFFICIENT OF FRICTION	
SLIP RATING	
TILES PER BOX	4
M2 PER BOX	1.44
PATTERNS/FACES	6
COUNTRY OF ORIGIN	China

## Building Code Clause and Contribution

### **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.

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

**D1 – Access routes**

For D1 access routes, in most cases product-related compliance for access routes are 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.

**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.

Manufacturer Details:

Tile Warehouse Approved



Importer Details:

Tile Warehouse Limited

Address: 286 Church Street, Onehunga, AKL 1061

NZBN: 9429041069448

Website: [www.tilewarehouse.co.nz](http://www.tilewarehouse.co.nz)



中国认可  
国际互认  
检测  
TESTING  
CNAS L0106

## INSPECTION REPORT

No: 18030870

PRODUCT	Porcelain Glazed Tile
NOMINAL SIZE	600mmx600mmx9.5mm
TRADE MARK	Estralla
CLIENT	Foshan Estrella Building Materials Co., Ltd.
INSPECTION TYPE	Sampling

National Quality Supervision Inspection Center  
of Building and Sanitary Ceramics. CHINA



### ATTENTION

1. This inspection report should be invalid without the special signet of the testing body.
2. Any copy of the report should be invalid except for signet on the testing body again.
3. This report should be invalid in case one of the three of compiler, auditor, approver was absent.
4. This report should be invalid if altered.
5. Any objection should be raised to the testing body in fifteen days after reception, it would be rejected if late.
6. The report is only responsible for the commissioned samples in commission inspection.

Address: China Building Material Certification Tower, North of Hongguang Road, Wangsi-  
Street, Fengdong New Town in Xixian New Area, Shaanxi, China.

Contact: 0086-29-68225880

Report Enquiry: 0086-29-68225839

Fax: 0086-29-68225881

Zip Code: 710116

Http: //www.ceramicstest.com


E-mail: shxctc@163.com



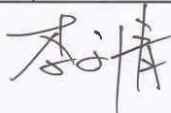
## INSPECTION REPORT

No:18030870

1 of 2

Product	Porcelain Glazed Tile	Nominal Size	600mm×600mm×9.5mm
		Work Size	600mm×600mm×9.5mm
Client	Foshan Estrella Building Materials Co., Ltd	Trade Mark	Estrella
Manufacturer	----	Inspection Type	Sampling
Client Address	Room 02, Unit 706, Building 4, No.133 West Jihua Road, Chancheng District, Foshan, Guangdong, China	Group	B I a
Manufacturer Address	----	Production Date/Batch	2018.03
Sampling Position	Storehouse of manufacturer	Sampler	Ma Zhuan E Li Wen Qing
Sampling Quantity	4 boxes ( 16 pieces )	Sampling Date	2018.03.17
Sampling Base	2000 boxes	Receive Date	2018.03.27
Inspection Standard	GB/T 4100-2015 GB 6566-2010 HJ/T 297-2006	Inspection Item	See page 2
Inspection Date	2018.03.27~2018.04.10	Sample Description	Glazed and polished surface
Inspection Conclusion	<p>According to standard of <i>GB/T 4100-2015 Ceramic tile Annex G</i>, inspecting 23 properties of the product. The result testifies that the product reaches the requirements of the standard.</p> <p>According to standard of <i>GB 6566-2010 Limit of radionuclides in building materials</i> test. The result testifies that the product reaches class A requirements of the standard.</p> <p>According to National Standard <i>HJ/T 297-2006 Specifications for environmental labeling products-ceramics tiles</i>, inspecting content of resolvable Pb and content of resolvable Cd. The result testifies that 2 properties of the product reaches requirements of the standard.</p>		
Notes	 Issued Date: 2018.04.11		

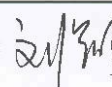
Approver:



Auditor:



Compiler:





## INSPECTION REPORT

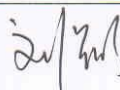
No:18030870

No.	Properties		Requirements	Result	Determinant
1	Side	The deviation of the average size for each tile ( 4 sides ) from the work size.	$\pm 1.0$ mm $n=10,Ac=0,Re=2$	-0.23 mm ~ -0.14 mm $d=0$	Pass
2	Thickness		$\leq 10.0$ mm	9.5 mm	Pass
3	Thickness deviation		$\pm 5\%$ , $\pm 0.5$ mm $n=10,Ac=0,Re=2$	+1.26% ~ +2.42% +0.12 mm ~ +0.23 mm $d=0$	Pass
4	Straightness of sides		$\pm 0.2\%$ , $\pm 1.5$ mm $n=10,Ac=0,Re=2$	-0.02% ~ +0.02% -0.09 mm ~ +0.10 mm $d=0$	Pass
5	Rectangularity		$\pm 0.2\%$ , $\pm 2.0$ mm $n=10,Ac=0,Re=2$	-0.06% ~ +0.08% -0.37 mm ~ +0.50 mm $d=0$	Pass
6	Center curvature		$\pm 0.15\%$ , $\pm 2.0$ mm $n=10,Ac=0,Re=2$	-0.06% ~ +0.04% -0.55 mm ~ +0.35 mm $d=0$	Pass
7	Edge curvature		$\pm 0.15\%$ , $\pm 2.0$ mm $n=10,Ac=0,Re=2$	-0.09% ~ +0.04% -0.51 mm ~ +0.25 mm $d=0$	Pass
8	Warpage		$\pm 0.15\%$ , $\pm 2.0$ mm $n=10,Ac=0,Re=2$	-0.12% ~ +0.14% -1.06 mm ~ +1.23 mm $d=0$	Pass
9	Surface quality		A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles $n=10,Ac=0,Re=2$	No visible defects $d=0$	Pass
10	Water absorption (%)		Average: $E \leq 0.5$ Individual: $E \leq 0.6$ $n=5,Ac=0,Re=2$	Average: 0.02 Individual maximum: 0.03 $d=0$	Pass
11	Breaking strength (N)		Thickness $\geq 7.5$ mm, $\geq 1300$ Thickness $< 7.5$ mm, $\geq 700$ $n=7,Ac=0,Re=2$	Average: 2418 $d=0$	Pass
12	Modulus of rupture (MPa)		Average: $\geq 35$ Individual: $\geq 32$ $n=7,Ac=0,Re=2$	Average: 49 Individual minimum: 47 $d=0$	Pass
13	Abrasion resistance		Report abrasion class and cycles passed	4 Class ( 2100 cycles )	
14	Thermal shock resistance		No crack or crazing after test. $n=5,Ac=0,Re=2$	No crack and crazing $d=0$	Pass
15	Crazing resistance		No crazing on glazed surface after test. $n=5,Ac=0,Re=2$	No crazing $d=0$	Pass
16	Frost resistance		No crazing or peeling after test. $n=10,Ac=0,Re=1$	No crazing and peeling $d=0$	Pass
17	Coefficient of static friction		Individual: $\geq 0.50$ $n=3,Ac=0,Re=1$	Dry the minimum: 0.61 $d=0$	Pass
18	Glossiness of polished tiles		$\geq 55$ $n=5,Ac=0,Re=2$	94, 95, 94, 95, 95 $d=0$	Pass
19	Moisture expansion (mm/m)		Report the result of test	0.05	
20	Impact resistance		Report average impact resistance after test	0.84	
21	Resistance to staining		Minimum 3 Class $n=5,Ac=0,Re=2$	5 Class $d=0$	Pass
22	Resistance to chemicals (Class)	Low concentration acids & alkalis	GLA, GLB, GLC	GLA	
		High concentration acids & alkalis	GHA, GHB, GHC	GHA	
		Household chemicals and swimming pool salts	Minimum GB $n=5,Ac=0,Re=2$	GA $d=0$	Pass
23	Lead and cadmium release (mg/dm <sup>2</sup> )		Report the result of test	Lead release: 0.030 Cadmium release: 0.002	
24	Limit of radionuclides		Class A: $I_{Ra} \leq 1.0, I_r \leq 1.3$ Class B: $I_{Ra} \leq 1.3, I_r \leq 1.9$ Class C: $I_r \leq 2.8$	$I_{Ra}=0.3$ $I_r=0.5$	Class A
25	content of resolvable Pb (mg/kg)		$\leq 20$	3.9	Pass
25	content of resolvable Cd (mg/kg)		$\leq 5$	< 0.05	Pass
Note					

Auditor:



Compiler:





# FIRE PERFORMANCE

## BE 100% CONFIDENT IN THE PRODUCTS YOU SPECIFY



*“ The Grenfell Tower tragedy in London highlights the importance to specifiers of ensuring the products they specify (from flooring to cladding materials) are fire-resistant in order to conform to the building code relating to fire rating regulations. ”*

## TILES DO NOT REQUIRE TESTING AS THEY DO NOT CONTRIBUTE TO FIRE

In New Zealand, fire ratings are required by the Building Code to ensure that if a building is on fire, its construction materials do not significantly increase the spread or intensity of a fire. Tiles, being non-combustible, do not require testing as they do not contribute to fire. Aside from this, tiles by nature do not contain any form of petroleum-based product or wood fibres and are in essence, fire-proof and non toxic!

**The building code relating to fire rating regulations and standards became 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.

### WHAT YOU NEED TO KNOW:

- Because most ceramics are manufactured at over 1000 degrees celsius, they become fire-resistant and therefore an obvious choice for both commercial and residential floor and wall surfaces. For example, if a lighted cigarette is dropped on the floor, it will not do any damage to the tile. Even hot kitchen pans or skillets will not scorch or melt the surface of tile, let alone set the tile on fire.
- Tiles are non-combustible so do not catch fire, nor do they give off toxic fumes in the form of VOC's (Volatile Organic Compounds) affecting breathing, when exposed to fire.
- During the manufacture of tiles, any VOC's that may have been present in clays or binders are completely burned away which ensures the final product is inert.



A safe and simple approach with regards to Fire performance in products is to utilise tile for both **Floor** and **Wall** areas. To view latest styles and designs to suit Commercial Projects, see our tile and stone range; <https://www.tilewarehouse.co.nz/tile-stone-range/>