

# VILLA STONE MILANO GREY MATT 600x600



## Class 1 Building Product Information Requirements Self-Assessment

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Product Name: VILLA STONE MILANO GREY MATT 600x600

Product Identifier: VILSTMG60

Product Description: A glazed porcelain tile with an matt finish and a water absorption rate of less than 0.50%.

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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	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	VILSTMG60
TILE SIZE (mm)	600x600
THICKNESS (mm)	8
SUITABILITY	Floor/Wall
FINISH	Matt
CLASS	PEI Class 4: Moderate to heavy traffic, All residential as well as medium commercial and light industrial.
RECTIFIED	Yes
WEIGHT (kg)	6.50
COEFFICIENT OF FRICTION	0.51
SLIP RATING	
TILES PER BOX	4
M2 PER BOX	1.44
PATTERNS/FACES	12
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

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

# VILLA STONE

GLAZED PORCELAIN | GRIP - WET SERIES



## CERASIA INTERNATIONAL SDN. BHD. Technical Specification for VILLA STONE Series – Glazed Porcelain

Type of Test	International Norm	International Standard	CA Typical Standard (Grip-Wet Finish)
Water Absorption	ISO 10545-3	Group B1a, E $\geq$ 0.5%	$\leq$ 0.5%
Dimension :			
Length & Width	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Thickness	ISO 10545-2	$\pm$ 5.00%	$\pm$ 5.00%
Straightness of Sides	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Rectangularity	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Flatness of Surface:			
Centre Curvature	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Warpage	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Edge Curvature	ISO 10545-2	$\pm$ 0.50%	$\pm$ 0.35%
Co-efficient of Thermal Expansion	ISO 10545-8	$\leq$ $9 \times 10^{-6} \text{K}^{-1}$	$\leq$ $9 \times 10^{-6} \text{K}^{-1}$
Thermal Shock	ISO 10545-9	No Damage	No Damage
Frost Resistance	ISO 10545-12	No visible alteration to the surface	No visible alteration to the surface
Chemical Resistance	ISO 10545-13	Min. GB	GA
Resistance to Staining	ISO 10545-14	Min. Class 3	Min. Class 3
Slip Resistance (Wet Pendulum)	AZ / NZS 4586 (App.A)	P0 – P5	Grip-Wet = P4 / P5

Notes: The above generic Cerasia International Standards on Grip-Wet surface finishes serve as a general guide only. Different types of tiles are made to meet different performance requirements; for legal compliance or product technical performance please request a confirmation or report from the CerAsia International Sales & Marketing Team or its agent.

**CERASIA**  
INTERNATIONAL

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## SLIP RESISTANCE TEST REPORT

Client: Tile Warehouse  
Client's Reference: 80052

Tested By: Dave Cockerton  
Date: 01.05.23

### DESCRIPTION OF SAMPLE

Manufacturer: Unkown  
Common Name: Villa Stone Series In-Out  
Specimen Size: 600x600  
No. of Specimens Tested: 5

Material Type:  
Surface Type:  
Colour: Grey  
Surface Coating:

### METHOD

Tests were carried out in accordance with AS/NZS 4586:2014 (Incorporating Amendment No 1) Slip Resistance of Pedestrian Surfaces, Part 1- Requirements, Appendix A "Method for the Measurement of the Coefficient of friction of Wet Surfaces".

Type of Test: **Wet**

Location of Test:

Air Temperature: °C18

### RESULTS

Specimen No.	Dilution Ratio	Dwell Time	Mean Coefficient of Friction
one			0. 87
two			0. 87
three			0. 87
four			0. 87
five			0. 87

**SAMPLE MEAN COEFFICIENT OF FRICTION:**

**0. 87**

### REQUIREMENTS

**Horizontal Surfaces:** When tested in accordance with the method set out in Appendix A, the pedestrian surface shall have a mean coefficient of friction of not less than **0.40** and no specimen in that sample shall be less than **0.35**.

**DISCLAIMER:**

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# 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/>