

# RAKU SAGE MATT 60x186



## Class 1 Building Product Information Requirements Self-Assessment

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Product Name: RAKU SAGE MATT 60x186

Product Identifier: RAKSA60X186

Product Description: A glazed porcelain tile with an R9 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	Not acceptable for use under D1/AS1
E3 Internal Moisture	Under E3 Tiles installed over a waterproof membrane using a nonporous Grouting system, are an acceptable solution.
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	✓	✓	✓	✓

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

Specifications	
CODE	RAKSA60X186
TILE SIZE (mm)	60x186
THICKNESS (mm)	0
SUITABILITY	Floor/Wall
FINISH	Matt
CLASS	PEI Class 4: Moderate to heavy traffic, All residential as well as medium commercial and light industrial.
RECTIFIED	No
WEIGHT (kg)	0.18
COEFFICIENT OF FRICTION	
SLIP RATING	R9
TILES PER BOX	38
M2 PER BOX	0.42
PATTERNS/FACES	50
COUNTRY OF ORIGIN	Spain

## 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.

### **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)

CARACTERÍSTICAS TÉCNICAS – TECHNICAL DATA SHEET

**a) DIMENSIONES – DIMENSIONS**

Característica <i>Characteristic</i>	Norma <i>Norm</i>	Valor medio según dimensión nominal N <i>Average value depending on nominal dimension N</i>		
		7 cm ≤ N < 15 cm	N ≥ 15 cm	
Longitud y anchura <i>Length and width</i>	EN ISO 10545-2	± 0.75 mm	± 0.5 %	± 2.0 mm
Espesor <i>Thickness</i>	EN ISO 10545-2	± 0.5 mm	± 10 %	± 0.5 mm
Rectitud de lados <i>Straightness of sides</i>	EN ISO 10545-2	± 0.5 mm	± 0.3 %	± 1.5 mm
Ortogonalidad <i>Rectangularity</i>	EN ISO 10545-2	± 0.75 mm	± 0.5 %	± 2.0 mm
Planitud de la superficie <i>Surface flatness</i>				
Curvatura central <i>Central curvature</i>	EN ISO 10545-2	+ 0.75 mm	+ 0.5 %	+ 2.0 mm
Curvatura lateral <i>Side curvature</i>		- 0.50 mm	- 0.3 %	- 1.5 mm
Alabeo <i>Warp</i>		+ 0.75 mm	+ 0.5 %	+ 2.0 mm
		- 0.50 mm	- 0.3 %	- 1.5 mm

CARACTERÍSTICAS TÉCNICAS – TECHNICAL DATA SHEET

**b) PROPIEDADES FÍSICAS – PHYSICAL PROPERTIES**

Característica <i>Characteristic</i>	Norma <i>Norm</i>	Valor medio <i>Average value</i>
Absorción de agua <i>Water absorption</i>	EN ISO 10545-3	< 0.5 % (BI <sub>a</sub> )
Fuerza de rotura <i>Breaking of rupture</i>	EN ISO 10545-4	> 1300 N
Resistencia mecánica <i>Modulus of rupture</i>	EN ISO 10545-4	> 35 N/mm <sup>2</sup>
Resistencia a la abrasión superficial (PEI) <i>Resistance to surface abrasion (PEI)</i>	EN ISO 10545-7	4
Resistencia al rayado (MOHS) <i>Scratch hardness (MOHS)</i>	EN 101	7
Coefficiente de dilatación térmica lineal <i>Linear thermal expansion coefficient</i>	EN ISO 10545-8	6.5*10 <sup>-6</sup> /°C
Resistencia al choque térmico <i>Resistance to thermal shock</i>	EN ISO 10545-9	Garantizada <i>Guaranteed</i>
Resistencia al cuarteo <i>Crazing resistance</i>	EN ISO 10545-11 ASTM C424	Garantizada <i>Guaranteed</i>
Resistencia a la helada <i>Frost resistance</i>	EN ISO 10545-12	Garantizado <i>Guaranteed</i>
Resistencia al deslizamiento <i>Slip resistance</i>		
Ángulo crítico de deslizamiento (pie calzado) <i>Ramp test (shoes)</i>	DIN 51130	R9
Ángulo crítico de deslizamiento (pie descalzo) <i>Ramp test (bare foot)</i>	DIN 51097	B
Test del péndulo <i>Pendulum test</i>	UNE ENV 12633	Clase 1
Test del péndulo <i>Pendulum test</i>	BS EN 13036-4:2011	25
Coefficiente fricción DCOF (húmedo) <i>Coefficient of Friction DCOF (wet)</i>	ASTM BOT3000	≥ 0.42
Coefficiente fricción (húmedo) <i>Coefficient of Friction (wet)</i>	ASTM C-1028	≥ 0.50
Coefficiente fricción <i>Coefficient of Friction</i>	B.C.R.A. Method	μ ≥ 0.4
Reacción al fuego <i>Reaction to fire</i>	---	A1 <sub>FL</sub> - s1 / A1- s1, d0
Destonificación <i>Shade Variation</i>	---	V3

CARACTERÍSTICAS TÉCNICAS – TECHNICAL DATA SHEET

c) PROPIEDADES QUÍMICAS – CHEMICAL PROPERTIES

Característica <i>Characteristic</i>	Norma <i>Norm</i>	Valor medio <i>Average value</i>
Resistencia a las manchas <i>Resistance to stains</i>	EN ISO 10545-14	5
Resistencia a productos químicos <i>Chemical resistance</i>		
Ácidos y álcalis de baja concentración <i>Low concentration acids and alkalis</i>	EN ISO 10545-13	GLA
Ácidos y álcalis de alta concentración <i>High concentration acids and alkalis</i>		GHA
Productos domésticos <i>Household chemicals</i>		GA

# 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/>