MUTINA KOSEI RANGE

BUILDING PRODUCT INFORMATION REQUIREMENTS (BPIR) – CLASS 1

This document is intended to provide the building product information required for a Class 1 designated building product under the (Building Product Information Requirements) Building Regulations 2022.

Product Name:	**MUTINA KOSEI RANGE – VARIOUS COLOURS/FINISHES/SIZES/THICKNESS**
Product Identifier:	Refer to tile name and product code on paperwork/packaging.
Product Description:	Unglazed porcelain stoneware with a water absorption rate of less than 0.50% designed as a finished product to complete the chosen aesthetic of a building project.
Intended Use:	Porcelain tiles from this range can be installed in line with NZ Building Code requirements and BRANZ best practices. Porcelain tiles are an aesthetic finish to a surface not intended to be load bearing or structural.
Country of Origin:	Italy

Building Code Obligations

Within the intended scope of use, the existing European Ceramics BPIR identifies the following Building Code clauses as potentially relevant. Applicability depends on the actual location and design use:

- B2 – Durability (including B2.3.1)
- C3 – Fire affecting areas beyond the source
- D1 – Access routes (including D1.3.3)
- E3 – Internal moisture (including E3.3.2, E3.3.3 and E3.3.4)
- G3 – Food preparation and prevention of contamination (including G3.3.2)
- G6 – Airborne and impact sound (including G6.3.1 where applicable)

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

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

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 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 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.

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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.

Limitations of Use

Product technical/specification sheets from manufacturers outline composition details and characteristics including material, finishes, PEI ratings, size (including variations, calibrations, weights) colour and slip ratings. Tiles are a finishing product, consented plans or specification should be referred to in order to outline the details of suitability with regard to NZBC requirements.

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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Manufacturer Information

Address: Via del Crociale, 25 41042 Fiorano, Modenese MO, Italy

Website: https://www.mutina.it/en

Email Address: info@mutina.it

Technical Information

Product catalogue & technical/specification sheets for each range can be located Click here

General Information

collection	Kosei
design	Vincent Van Duysen, 2022
production	Industrial
material	Extruded unglazed porcelain stoneware
thickness	10 mm
nominal sizes	60x180 cm (24"x71"), 60x90 cm (24"x36"), 60x60 cm (24"x24"), 15x90 cm (6"x36"), 15x60 cm (6"x24"), 15x30 cm (6"x12"), 15x15 cm (6"x6") chevron: 9,6x56,5 cm (4"x22")
specification	– 5 colours: Bone, Storm, Terra, Grey Green, Dark Grey
category	UNI EN 14411 App A (AI group) UGL

Laying and maintenance tips

use	Floors, walls – indoor, outdoor.
installation	The double spreading technique is recommended for the 60x180 size.
recommended adhesive	Adhesive for porcelain stoneware
recommended joints	2 mm joints
recommended fillers	CEMENT-BASED GROUT / EPOXY GROUT Remove all traces of grout carefully, before it dries completely.
cleaning at the end of installation	CEMENT-BASED GROUT: Buffered acid (e.g. DETERDEK PRO by FILA or similar). Wet the floor with water, dilute the product 1:5 with water and pour it on the floor. Wait for 2-3 minutes then use a white scotch brite pad and rinse well with clean water. EPOXY GROUT: Alkaline detergent (e.g. FILA CR10 by FILA). FILA CR10: Apply pure, wait for 30 minutes then use a green scotch brite pad. SILICONE: Solvent for silicone e.g. FILA ZERO SIL. Put it straight onto the stain, wait for 20 minutes and remove the mark using scotch brite. PAINT: Can usually be removed using water, but if resin based paints or particular materials have been used, it is best to ask the manufacturer which solvent is most suitable. RUST: stain remover ex. FILA NO RUST. Apply the product onto the stain, leave for 15 minutes, remove the residue and rinse thoroughly.
general cleaning (installed tiles)	You are recommended to use ordinary neutral detergent diluted in water. Avoid using acid or alkaline products, waxes and/or impregnants. During ordinary cleaning it is recommended to use extremely abrasive items (such as scourers and iron or steel sponges) as little as possible. This recommendation must be adhered to rigorously in the case of tiles with a glossy surface finishing as they are more susceptible to the risk of scuffs, scratches and loss of shine, etc. In the event of heavy dirt or particularly textured surfaces, use an alkaline detergent and rinse after washing. For large surfaces, the use of a floor washing machine is recommended. During every-day cleaning procedures, it is necessary to remember that certain types of dirt (dust, sand) increase the abrasive effect of foot traffic. Therefore we recommend that you avoid bringing in this type of dirt, which comes in from the outside, by placing a door mat at the entrance.
calibers (real size)	59.8 x 179.8 cm 59.8 x 89.8 cm 59.8 x 59.8 cm 14.8 x 89.8 cm 14.8 x 59.8 cm 14.8 x 29.8 cm 14.8 x 14.8 cm

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Technical features

STANDARD	FEATURES	VALUE REQUIRED	KOSEI
ISO 10545/2	SIZES		
	lenght and width thickness straigthness of edges wedging flatness	± 1% ± 10% ± 0,5% ± 1% ± 0,5%/0,8%	in conformity with standard
ISO 10545/3	water absorption	< 0,5%	0,06%
ISO 10545/4	breaking strength modulus of rupture	≥ 1300 N ≥ 32 N/mm2	in conformity with standard
ISO 10545/9	resistance to thermal shock	comply requirements	resistant
ISO 10545/12	frost resistance	comply requirements	resistant
ISO 10545/13	Resistance to acids and alkalis (low and high concentration) Resistance to household cleaning agents and swimming pool chemicals	declared value minimum class B	A A
ISO 10545/14	stains resistance	minimum 3	5
DIN 51130			R10
DIN 51097			B
DCOF		> 0.42	0.84
Pendulum BS (EN 16165-c)			35 dry 45 wet
Pendulum AS/NZS (4586 3 app A)			44 P3
Pendulum ES (UNE 41901)			45 C2
ISO 14001			
VOC Emission Declaration of Contents EPD SVHC declaration			available upon request

Packing

SIZE	PCS·SQM	PCS·BOX	SQM·BOX	BOX·PAL	KG·BOX	KG·PAL	SQM·PAL
60·180 cm	0,93	1	1,08	48	25,20	1210	51,84
60·90 cm	1,85	2	1,08	48	25,20	1210	51,84
60·60 cm	2,78	2	0,72	64	16,80	1075	46,10
15·90 cm	7,41	6	0,81	51	18,90	964	41,31
15·60 cm	11,11	9	0,81	52	18,90	983	42,12
15·30 cm	22,22	18	0,81	52	18,90	983	42,12
15·15 cm	44,44	36	0,81	52	18,90	983	42,12
chevron 9,6·56,5	18,44	14	0,76	43	17,70	797	34,20

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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 fire performance characteristics of ceramic/porcelain tiles or natural stone, please follow this link

Design Requirements

- The designer/specifier must confirm that the selected product colour, finish, size and thickness is suitable for the intended location and service conditions.
- Floor finishes must be selected with regard to the required slip resistance for the intended use, including access routes and wet areas where applicable.
- The supporting substrate and complete tile system must be designed to be sufficiently stable, rigid, level and suitable for the tile format and loading.
- Wet-area design must include the required waterproofing system, falls, drainage, junctions and penetrations. Tiles and grout are not to be relied upon as the waterproofing system.
- Movement/control joints must be incorporated where required by the substrate, building movement, tile layout and installation system.
- For underfloor heating, the heating system, substrate, adhesive, grout and movement-joint design must be compatible with porcelain tile and the relevant manufacturers' requirements.
- For external cladding or other specialist applications, project-specific design, fixing, wind/seismic actions and system compatibility must be verified before installation.
- Natural variation in shade, caliber and appearance should be considered when approving samples and setting out the installation.

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Installation Requirements

- Installation must be carried out by a competent tile installer in accordance with NZ standards & the BRANZ best tiling practices guide, the tile manufacturer's instructions and the installation-product manufacturers' instructions.
- Confirm the product identity, colour, finish, size, calibration and quantity before installation. Do not install visibly damaged or incorrect tiles.
- The substrate must be sound, clean, dry as required by the selected system, adequately cured, dimensionally stable, level and free of contaminants that may impair adhesion.
- Where waterproofing is required, install an appropriate waterproofing system before tiling and complete all junctions, penetrations and terminations in accordance with the waterproofing manufacturer's requirements.
- Select adhesive and grout suitable for porcelain tile, tile format, substrate, environment and service conditions. Follow the adhesive/grout manufacturer's mixing, open-time, coverage and curing requirements.
- Provide adhesive coverage appropriate to the application and tile format. Large-format and external/specialist installations may require additional measures to achieve adequate support and coverage.
- Provide movement joints and perimeter joints where required; do not bridge structural or substrate movement joints with rigid tile finishes.
- Maintain appropriate joint widths and setting-out tolerances. The supplier technical sheet included in the existing BPIR should be consulted for product-specific joint guidance.
- Protect the completed installation from traffic, moisture, impact and other loads until the adhesive, grout, sealants and associated systems have cured.
- For further installation information please refer to this link for porcelain, ceramic & natural stone.

Maintenance Requirements

- Clean routinely using clean water and a suitable neutral or manufacturer-approved tile cleaner. Follow the cleaning-product manufacturer's instructions.
- Remove spills and contaminants promptly. Cleaning frequency should reflect the location, traffic and contamination level.
- Do not use cleaning methods or chemicals that may damage grout, sealants, adjacent materials or any decorative/special surface finish. Confirm chemical compatibility before use.
- Avoid abrasive tools or cleaning methods that may scratch or alter the surface appearance.
- Maintain grout, flexible sealant and movement joints. Inspect them periodically and repair or replace deteriorated material where necessary.
- Where slip resistance is important, maintain the surface so that residues, oils, soap, coatings or other contaminants do not materially reduce slip performance.
- For further maintenance information please refer to this link for porcelain, ceramic & natural stone.

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