



Tender specifications MOTION collection

Supply of Fiordo porcelain stoneware tiles for walls and floors.

Product characteristics

Fiordo glazed porcelain stoneware tiles composed of a very fine mixture of quality clay with the addition of feldspar, quartz and kaolin, manufactured by dry pressing of atomized powders and subsequently sintered by industrial firing at temperatures above 1200°C.

The complete vitrification of the tiles allows for a compact, non-absorbent, frost-proof product, resistant to bending, impacts, staining, chemical attack and thermal shock.

Compliance with EN 14411-G / ISO 13006-G

The Motion collection is in compliance with the regulations required for first quality products in Italy and Europe UNI EN 14411-G and internationally through ISO 13006-G.

Quality and environmental certifications

The conservation of the product characteristics is guaranteed by the Quality Management System put into practice by Fiordo in its plants and certified in accordance with UNI EN ISO 9001.

The collection is manufactured in plants with UNI EN ISO 14001 certified Environmental Management Systems (internationally recognized standard) and EMAS (Regulation 1221/09 - eco-management and audit community system).

The collection helps to meet the criteria for obtaining LEED credits. The content of "pre-consumer" recycled material is 40%, as certified by a qualified external body (LEED V4 Regulations - MR Credit). The product contains no VOC (volatile organic compounds). The Environmental Product Declaration (EPD) is available, this tool communicates clearly the environmental performances of the Motion collection based on its Life Cycle Assessment (LCA).

Commercial description of the product		
Company	FIORDO INDUSTRIE CERAMICHE (Panariagroup Industrie Ceramiche S.p.A.)	
Collection	MOTION	
Colours	CLEAR, LAND, MID, DUN, CARBON	
Sizes	30X60cm RECT	30X60,3cm STRUTTURATO (LAND, DUN)
	60X60cm RECT	60,3X60,3cm
Surfaces	NATURALE, STRUTTURATO	
Edges	RECTIFIED (RECT), NOT RECTIFIED	
Thickness	9 mm – 10 mm	



EMAS



ISO 14001



40%



LEED



LEED



ISO 9001



MARCHIO CE



MADE IN ITALY



EPD

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Technical features

Product type: glazed porcelain stoneware (GL) / According to: ISO 13006-G (Group Bla), EN 14411-G (Group Bla)

Technical features		Test method	Required values - ISO 13006-G, EN 14411-G Bla-UGL Group	Average values MOTION
Water absorption		ISO 10545-3	≤ 0,5 %	0,05 %
Breaking strength (S)		ISO 10545-4	≥ 1300 N	1800 N – thickness 9 mm 2500 N – thickness 10 mm
Modulus of rupture		ISO 10545-4	≥ 35 N/mm ²	50 N/mm ²
Resistance to surface abrasion		ISO 10545-7	As indicated by manufacturer	PEI 4 (LAND, DUN) PEI 5 (CLEAR, MID)
Linear thermal expansion		ISO 10545-8	No provision	$\alpha \leq 7 \cdot 10^{-6} \text{ } ^\circ\text{C}^{-1}$
Stain resistance		ISO 10545-14	Class 3 Min.	5 RESISTANT
Chemical resistance (*)		ISO 10545-13	As indicated by manufacturer	LA, HA RESISTANT
Frost resistance		ISO 10545-12	No alteration	RESISTANT
Dimensions	Length and width	ISO 10545-2	± 0,6 % ± 2mm	COMPLIANT
	Straightness of sides	ISO 10545-2	± 0,5 % ± 1,5mm	COMPLIANT
	Rectangularity	ISO 10545-2	± 0,5 % ± 2mm	COMPLIANT
	Warpage	ISO 10545-2	± 0,5 % ± 2mm	COMPLIANT
	Thickness	ISO 10545-2	± 5 % ± 0,5mm	COMPLIANT
Slip resistance	DIN 51130	-	-	R9 (NATURALE) R11 (STRUTTURATO)
	DIN 51097	-	-	A+B+C (STRUTTURATO)
	BCR-TORTUS	-	-	$\mu > 0,40$
	ANSI A326.3	-	-	DCOF ≥ 0.42
Shade variation	ANSI A137.1	As indicated by manufacturer	V3	
Fire reaction	EN 13823	CPR (UE) 305/2011, 2000/147/CE, UNI EN 13501-1	Class A1 (wall)	
	EN 9239-1		Class A1 _{fl} (floor)	
Thermal conductivity	EN 12524	-	$\lambda = 1,3 \text{ W/m } ^\circ\text{K}$	
Recommended minimum joint (**)	Indoor	-	2mm (RECT)	
		-	3-4mm approx (NON RECT)	
	Outdoor	-	5-6mm approx	

(*) Excluding hydrofluoric acid and its derivatives.

(**) The width of grout joints must be established by the installation supervisor, unless grout widths are regulated by national laying standards.