

TEST REPORT

Name of Sample	MVG1691, MVG1692 Ceramic Wall Tile	Shade	V3
Spacer	3mm	Nominal Size	15,5X15,5 cm
Size	154,6 x 154,6 mm	Thickness	7,0 mm
m²/box	1,29	pcs/box	54
Surface	GL (Glazed)		

Characteristics	Method	Specification	Results
Indoor dry residential floors	Manufacturer's Recommendation	According to Manufacturer's Criteria	FWI WRC WWS
Indoor light commercial floors, including the areas FIR			
Indoor medium commercial floors, including the areas FLC and FIR			
Indoor heavy commercial floors, including the areas FMC, FLC, FIR			
Indoor dry residential and commercial walls			
Indoor wet residential and commercial floors			
Indoor and outdoor, wet or dry, residential and commercial walls, including the areas WID. For regions reaching below freezing temperatures, non frost resistant tiles are indoor only.			
Swimming pool interior walls, including the areas WRC and WID			
External facades, including the areas WRC and WID			
Floor - Very Heavy Outdoor Commercial and Outdoor Residential			
Floor - Light to Heavy Outdoor Commercial and Outdoor Residential			
Floor - Ramp Very Heavy Outdoor Commercial and Outdoor Residential			
Floor - Ramp Light to Heavy Outdoor Commercial and Outdoor Residential			

Characteristics	Method	Specification	Results
Water Absorption	ASTM C373-16	ANSI A 137.1: > 3,0 / ≤ 7,0	≤ 20,00
Breaking Load	ASTM C648-04	ANSI A 137.1: ≥250Lbf	≥125Lbf
Freeze Resistance	ASTM C1026-13	ANSI A 137.1: to be declared	No
Mohs Hardness	C1895-20	N/A	5
Stain Resistance	ASTM C1378-04	ANSI A 137.1: to be declared	Class A
Chemical Resistance	ASTM C650-04	ANSI A 137.1: to be declared	Turquesa: Class E : Agua: Class A
Wet Dynamic Friction Coefficient - DCOF	ANSI A326.3-	ANSI A 137.1: ≥ 0,42	≥ 0,42

NOTE: Check that the product is suitable for the intended use location.

Special care is recommended during laying and use, sand can cause scratches in any type of covering (stone, wood, vinyl or ceramic), for this reason, ceramic coverings have no guarantee. Protect against scratches, especially products with a shiny surface. In residential environments, protect the feet of furniture and machines with felt or carpet. Negligence in fully complying with the guidelines described in the use and operation manual, disregarding the indication of use specified by the place of use table present in this report, abnormal environmental actions, changes in the work environment, climatic factors, etc., will reduce the useful life, which may be shorter than the period declared by the manufacturer. Materials decorated with metallic finishes and shiny grains should only be cleaned with a cloth containing water and neutral detergent. Acid products, abrasive sponges or products that could damage the finishing layer of the materials should not be used. Outdoors in regions where there is snow, coatings should always be tested for frost resistance. Only porcelain tiles are recommended for external use in environments that have a temperature equal to or below 0°C.

Characteristics		Method	Specification	Results
Deviation of W/N:	W - Work size (mm) N - Nominal Size (mm)	ISO 10545-2	ISO 13006: ± 3,10	± 3,10
Deviation of r/W:	r - Average tile size (mm) W - Work size (mm)	ISO 10545-2	ISO 13006: ± 0,93	± 0,93
Rectangularity:	Deviation from W (mm)	ISO 10545-2	ISO 13006: ± 0,77	± 0,77
Straightness of sides:	Deviation from W (mm)	ISO 10545-2	ISO 13006: ± 0,77	± 0,77
Edge curvature:	Deviation from W (mm)	ISO 10545-2	ISO 13006: ± 0,77	± 0,77
Central Curve	Deviation in relation to dW (mm)	ISO 10545-2	ISO 13006: ± 1,09	± 1,09
Warping:	Deviation in relation to dW (mm)	ISO 10545-2	ISO 13006: ± 1,09	± 1,09
e/eW deviation:	e - Average thickness of a piece (mm) eW - Manufacturing thickness (mm)	ISO 10545-2	ISO 13006: 6,50 - 7,50	6,50 - 7,50
Visual Analysis:	Surface Quality (%)	ISO 10545-2	ISO 13006: ≥ 95	≥ 95
Water Absorption:	(%)	ISO 10545-3	ISO 13006: > 10,0	≤ 20,00
Breaking Load:	(N)	ISO 10545-4	ISO 13006: ≥ 200	≥ 300
Modulus of Rupture:	(MPa)	ISO 10545-4	ISO 13006: ≥ 15	≥ 15
Expansion by Moisture:	(mm/m)	ISO 10545-10	ISO 13006: ≤ 0,6	≤ 0,3
Cracking Resistance:	(Ciclos)	ISO 10545-11	ISO 13006:1	5
Stain Resistance				
Penetrating Agent	Chrome Green (40% in oil)	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
Film Forming Agent	Olive Oil	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
Oxidizing Action Agent	Alcoholic Iodine	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
Chemical Resistance				
Household product	Ammonium Chloride 100g/L	ISO 10545-13	ISO 13006: ≥ GB	GA
Pool water treatment	Sodium hypochlorite 20mg	ISO 10545-13	ISO 13006: ≥ GB	GA
Low concentration alkali	Hidróxido do Potássio 30g/L	ISO 10545-13	ISO 13006: to be declared	GLB
Low concentration acid	Hydrochloric Acid 3% (v/v)	ISO 10545-2	ISO 13006: to be declared	GLB
Low concentration acid	Citric Acid 100g/L	ISO 10545-2	ISO 13006: to be declared	GLB
Solar absorptance - α*		NBR 15575 - 3-	NBR 15575:to be declared	0.6 - 0.7
Solar Reflectance - ρ*		NBR 15575 - 3-	NBR 15575:to be declared	0.4 - 0.3
Solar Emittance - ε*		NBR 15575 - 3-	NBR 15575:to be declared	0.75 - 0.85
Solar Reflectance Index - SRI H=5 (W/m²K)*		NBR 15575 - 3-	NBR 15575:to declared	65 - 40
Resistance under the Action of Humidity		NBR 15575 - 3-	NBR 15575:to be declared	Resistant
Service life: (years)		NBR 15575 - 3-	NBR 15575:13	13
Resistance to Fire		NBR 15575 - 3-	NBR 15575:Class 1	Class 1
Wet Friction Coefficient		NBR 16919-	NBR 16919: ≥ 0,40	≥ 0,40
Dry Friction Coefficient		NBR 16919-	NBR 16919: to be declared	≥ 0,50
Hard Body Impact		NBR 15575 - 3-	NBR 15575: No Rupture (5J)	No Rupture (5J)
Coefficient of restitution		ISO 10545-5	ISO 13006: ≥ 0,55	≥ 0,60