

TEST REPORT

<b>Name of Sample</b>	MVG1695, MVG1696	<b>Shade</b>	V3
<b>Spacer</b>	3mm	<b>Nominal Size</b>	7,5X7,5 cm
<b>Size</b>	75,8 x 75,8 mm	<b>Thickness</b>	6,0 mm
<b>m<sup>2</sup>/box</b>	1,59	<b>pcs/box</b>	13
<b>Surface</b>	GL (Glazed)		

Characteristics	Method	Specification	Results
All indoor residential environments	Manufacturer's Recommendation	According to Manufacturer's Criteria	WWS WFA
Commercial environments with light to moderate traffic of people, including FIR environments.			
Commercial environments with moderate to intense traffic of people and light equipment, including FLC and FIR environments.			
Commercial environments with very intense traffic of people, heavy equipment and vehicles, including FMC, FLC and FIR environments.			
All interior residential and commercial walls dry.			
Wet indoor residential and commercial environments			
All internal dry or damp residential and commercial walls, and external walls up to 3 m high, including WID environments			
Internal walls of swimming pools, including WRC and WID environments.			
External facades, including WRC and WID environments.			
External commercial environments, with very intense traffic of people, heavy equipment and vehicles, including FMO environments.			
External commercial environments, with intense, moderate and light traffic of people, light equipment and external residential environments.			
Ambientes comerciais externos, com inclinação e rampas (inclinação máxima 8,33%) com trânsito muito intenso de pessoas, equipamentos pesados e veículos, inclusive ambientes FRM, FHO, e FMO.			
Ambientes comerciais externos, com inclinação e rampas (inclinação máxima 8,33%) com trânsito intenso, moderado e leve de pessoas, equipamentos leves e ambientes residenciais externos inclusive ambientes FMO.			

Characteristics	Method	Specification	Results
<b>Water Absorption</b>	ASTM C373-16	ANSI A 137.1: > 3,0 / ≤ 7,0	≤ 6,00
<b>Breaking Load</b>	ASTM C648-04	ANSI A 137.1: ≥250Lbf	≥250Lbf
<b>Freeze Resistance</b>	ASTM C1026-13	ANSI A 137.1: to be declared	No
<b>Mohs Hardness</b>	C1895-20	N/A	4
<b>Stain Resistance</b>	ASTM C1378-04	ANSI A 137.1: to be declared	Class A
<b>Chemical Resistance</b>	ASTM C650-04	ANSI A 137.1: to be declared	Class A

**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
<b>Description of W/N:</b>	W - Manufacturing size (mm) N - Nominal size (mm)	ISO 10545-2	ISO 13006: ± 1,50	± 1,50
<b>r/W deviation:</b>	r - Average size of a piece (mm) W - Manufacturing size (mm)	ISO 10545-2	ISO 13006: ± 0,90	± 0,90
<b>Orthogonality:</b>	Deviation in relation to W (mm)	ISO 10545-2	ISO 13006: ± 0,80	± 0,80
<b>Retitude Lateral:</b>	Deviation in relation to W (mm)	ISO 10545-2	ISO 13006: ± 0,80	± 0,80
<b>Lateral Curve:</b>	Deviation in relation to W (mm)	ISO 10545-2	ISO 13006: ± 0,80	± 0,80
<b>Central Curve</b>	Deviation in relation to dW (mm)	ISO 10545-2	ISO 13006: ± 0,80	± 0,80
<b>Warping:</b>	Deviation in relation to dW (mm)	ISO 10545-2	ISO 13006: ± 0,80	± 0,80
<b>e/eW deviation:</b>	e - Average thickness of a piece (mm) eW - Manufacturing thickness (mm)	ISO 10545-2	ISO 13006: 5,50 - 6,50	5,50 - 6,50
<b>Visual Analysis:</b>	Surface Quality (%)	ISO 10545-2	ISO 13006: ≥ 95	≥ 95
<b>Water Absorption:</b>	(%)	ISO 10545-3	ISO 13006: > 3,0 E ≤ 6,0	≤ 6,00
<b>Breaking Load:</b>	(N)	ISO 10545-4	ISO 13006: ≥ 600	≥ 600
<b>Flexural Resistance Module:</b>	(MPa)	ISO 10545-4	ISO 13006: ≥ 22	≥ 32
<b>Expansion by Moisture:</b>	(mm/m)	ISO 10545-10	ISO 13006: ≤ 0,6	≤ 0,3
<b>Cracking Resistance:</b>	(Ciclos)	ISO 10545-11	ISO 13006:1	5
<b>Stain Resistance</b>				
<b>Penetrating Agent</b>	Chrome Green (40% in oil)	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
<b>Film Forming Agent</b>	Olive Oil	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
<b>Oxidizing Action Agent</b>	Alcoholic Iodine	ISO 10545-14	ISO 13006: ≥ Classe 3	Classe 5
<b>Chemical Resistance</b>				
<b>Household product</b>	Ammonium Chloride 100g/L	ISO 10545-13	ISO 13006: ≥ GB	GA
<b>Pool water treatment</b>	Sodium hypochlorite 20mg	ISO 10545-13	ISO 13006: ≥ GB	GA
<b>Low concentration alkali</b>	Hidróxido do Potássio 30g/L	ISO 10545-13	ISO 13006: to be declared	GLB
<b>Low concentration acid</b>	Hydrochloric Acid 3% (v/v)	ISO 10545-2	ISO 13006: to be declared	GLB
<b>Low concentration acid</b>	Citric Acid 100g/L	ISO 10545-2	ISO 13006: to be declared	GLB
<b>Solar absorptance - α*</b>		NBR 15575 - 3-	NBR 15575:to be declared	0.6 - 0.7
<b>Solar Reflectance - ρ*</b>		NBR 15575 - 3-	NBR 15575:to be declared	0.4 - 0.3
<b>Solar Emittance - ε*</b>		NBR 15575 - 3-	NBR 15575:to be declared	0.75 - 0.85
<b>Solar Reflectance Index - SRI H=5 (W/m<sup>2</sup>K)*</b>		NBR 15575 - 3-	NBR 15575:to declared	65 - 40
<b>Resistance under the Action of Humidity</b>		NBR 15575 - 3-	NBR 15575:to be declared	Resistant
<b>Service life: (years)</b>		NBR 15575 - 3-	NBR 15575:20 facade and 13 others	20 facade and 13 others
<b>Resistance to Fire</b>		NBR 15575 - 3-	NBR 15575:Class 1	Class 1