

TEST REPORT  
(Report No.) : 201001801432

<b>Name of Sample</b>	MVG619, MVG620, MVG621, MVG622	<b>Received Date</b>	2018/04/28
<b>Testing Category</b>	See Below	<b>Reported Date</b>	2018/05/07
<b>Test Standard</b>	ISO 13006:2012	<b>Shape of Sample</b>	75x3000x7mm
<b>Quantity of Sample</b>	30		
Results of Inspection			

Test Item	Provisions of Standard	Test Results	Judgement	Test Method
<b>Length</b>	The deviation, in %, of the average size for each tile (2/4 sides) from the work size: $\pm 0.5\%$ ( $\pm 2.0\text{mm}$ )	-0.2%~+0.2%	Passed	ISO10545-2 1995
<b>Width</b>	The deviation, in %, of the average size for each tile (2/4 sides) from the work size: $\pm 0.75\text{mm}$	+0.4mm~+0.7mm	Passed	
<b>Thickness Deviation</b>	The deviation, in %, of the average thickness of each tile from the work size: $\pm 10\%$ ( $\pm 0.5\text{mm}$ )	-2.7%~+1.4%	Passed	
<b>Straightness of sides</b>	The maximum deviation from straightness, in %, related to the corresponding work sizes: $\pm 0.3\%$ ( $\pm 1.5\text{mm}$ )	-0.1%~+0.1%	Passed	
<b>Rectangularity</b>	The maximum deviation from Rectangularity, in %, related to the corresponding work sizes: $\pm 0.5\%$ ( $\pm 2.0\text{mm}$ )	-0.2%~+0.2%	Passed	
<b>Surface Flatness</b>	<b>Centre Curvature</b> Centre curvature, related to diagonal calculated from the work size: -0.3%~+0.5% (-1.5mm~2.0mm)	-0.1%~+0.2%	Passed	
	<b>Edge Curvature</b> Edge curvature, related to the corresponding work size: -0.3%~+0.5% (-1.5m~+2.0mm)	-0.2%~+0.3%	Passed	
	<b>Warpage</b> Warpage, related to diagonal calculated from the work size: $\pm 0.5\%$ ( $\pm 2.0\text{mm}$ )	-0.1%~+0.3%	Passed	
<b>Surface Quality</b>	A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles.	Passed	Passed	
<b>Water Absorption</b>	Average: $E > 10\%$ Individual minimum: 9%	Average: 16% Individual minimum: 17%	Passed	
<b>Breaking Strength</b>	Thickness < 7.5mm, $\geq 200\text{N}$	522N	Passed	ISO10545-4 2014
<b>Modulus of rupture</b>	Thickness < 7.5mm, $\geq 15\text{Mpa}$	19Mpa	Passed	
<b>Impact Resistance</b>	Test Method Available	Average: 0.58	---	ISO10545-5 1996
<b>Resistance to surface abrasion of glazed tiles</b>	Report abrasion class & cycles passed	Class 3 at 750 revolutions	---	ISO10545-7 1996
<b>Coefficient of linear thermal expansion</b>	Test Method Available	6.6x10 <sup>-6</sup> °C	---	ISO10545-8 2014
		6.7x10 <sup>-6</sup> °C		
<b>Thermal shock resistance</b>	Fully resistant	Fully Resistant	Passed	ISO10545-9 2004

**Important Notes:**  
The results in this report apply to the samples only.

Test Item	Provisions of Standard	Test Results	Judgement	Test Method
<b>Moisture Expansion</b>	Test Method Available	Average:0.01%	---	ISO10545-10 1995
<b>Crazing Resistance</b>	No craze on glazed surface	No Craze	Passed	ISO10545-11 1994
<b>Resistance to Frost</b>	No crazing or peeling	No crazing or peeling	Passed	ISO10545-12 1995
<b>Resistance to low concentrations of acids and alkalis</b>	Manufacturer to state classification	GLA	---	ISO10545-13 1995
<b>Resistance to household chemicals and swimming pool salts</b>	Minimum GB	GA	Passed	
<b>Resistance to staining</b>	Minimum Class 3	Class 5	Passed	ISO10545-14 1995

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