

Test Report

Manufacturer	Foshan Shiwan Yulong Ceramic Co., Ltd		Report Number: 20160311
Name of sample	Glazed mosaic	Nominal size (N)	2" hexagon (51x59mm hexagon)
Naure of the surface	Glazed (GL)	Work size	51x59x5.9mm hexagon
Group	B la	Intended use	Floorings and wall finishes, Interior and exterior
Source of samples	our store	Mark of samples	HC6570
Quantity of samples	2 carton (12sheets/ctn)	Date of sampling	March 01, 2016.
Test classification	Regular test	Date of finish	March 11, 2016.
Test Standard	EN 14411:2012 Ceramic tiles - Definitions, classification, characteristics, evaluation of conformity and marking Annex G Requirement for dry-pressed ceramic tiles with low water absorption of Group B la ($E_b \leq$		
Conclution of Test	The results conform to the requirement of Annex G of standard EN1411:2012 with respect to the test items.		

Clause	Properties	Test Method	Requirements	Test Result	Verdicts	
A Dimensions and surface quality						
A.1	Length and width	EN ISO 10545-2	The deviation, in percent, of the average size for each tile (2 or 4 sides) from the work size: $\pm 1.0\%$	-0.08% +0.06%	Pass	
			The deviation, in percent, of the average size for each tile (2 or 4 sides) from the average size of the 10 test specimens (20 or 40 sides): $\pm 0.5\%$	-0.15% ~+ 0.05%	Pass	
A.2	Thickness	EN ISO 10545-2	Average size	5.9mm	---	
			Deviation	The deviation, in percent, of the average thickness of each tile from the work size thickness: $\pm 10\%$	-0.32% ~+ 0.33%	Pass
A.3	Straightness of sides	EN ISO 10545-2	The maximum deviation from straightness, in percent, related to the corresponding work size: $\pm 0.5\%$	-0.15% ~+ 0.21%	Pass	
A.4	Rectangularity	EN ISO 10545-2	The maximum deviation from straightness, in percent, related to the corresponding work size: $\pm 0.6\%$	-0.18% ~+ 0.25%	Pass	
A.5	Surface flatness	EN ISO 10545-2	Center curvature	Centre curvature, related to diagonal calculated from the work size: $\pm 0.5\%$	-0.05% ~+ 0.14%	ditto
			Edge curvature	Edge curvature, related to the corresponding work size: $\pm 0.5\%$	-0.18% ~+ 0.22%	ditto
			Warpage	Warpage, related to diagonal calculated from the work size: $\pm 0.5\%$	-0.15% ~+ 0.06%	ditto
A.6	Surface quality	EN ISO 10545-2	A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles	Pass	Pass	
B Physical properties						
B.1	Water absorption Percent mass fraction	EN ISO 10545-3	$E_b \leq 0.5\%$	0.11%	Pass	
			individual maximum 0.6%	0.09% ~ 0.13%	Pass	
B.2	Breaking strength, in N	EN ISO 10545-4	≥ 700	N/A	---	

Clause	Properties	Test Method	Requirements	Test Result	Verdicts
B.3	Modulus of rupture, in N/mm ²	EN ISO 10545-4	Minimum 35	N/A	---
			Individual minimum 32	N/A	---
B.4	Abrasion resistance	EN ISO 10545-6	≤175	131 ~ 139	Pass
B.6	Thermal shock resistance	EN ISO 10545-9	Pass	Fully resistance	Pass
B.8	Frost resistance	EN ISO 10545-12	Pass	Fully resistance	Pass
B.9	Slipperiness	DIN51130	Declared value	a ges: 19.3°	---
				Classification: R11	---
B.14	Reaction to fire	CWT	Class A1 or A1 _{FL}	Used for walls: Class A1 Used for floorings: Class A1 _{FL}	Pass
C	Chemical properties				
C.2	Resistance to chemicals				
	Resistance to household chemicals and swimming pool salts				
	a) Household chemicals: Ammonium chloride, 100g/L	EN ISO 10545-13	Minimum class B	UA	Pass
	b) Swimming pool salts: Sodium hypochlorite solution, 20mg/L	EN ISO 10545-13	Minimum class B	UA	Pass
	Resistance to low concentrations of acids and alkalis				
	a) Hydrochloric acid solution, 3% (v/v)	EN ISO 10545-13	Declared value	ULA	---
	b) Citric acid solution, 100g/L	EN ISO 10545-13	Declared value	ULA	---
	c) Potassium hydroxide, 30g/L	EN ISO 10545-13	Declared value	ULA	---
	Resistance to high concentrations of acids and alkalis				
	a) Hydrochloric acid solution, 18% (v/v)	EN ISO 10545-13	Declared value	UHA	---
	b) Lactic acid, 5% (v/v)	EN ISO 10545-13	Declared value	UHA	---
	c) Potassium hydroxide, 100g/L	EN ISO 10545-13	Declared value	UHA	---

