

## Test Report

Manufacturer	Ceramic Co., Ltd		Report Number: 2020012
Name of sample	Glazed mosaic	Nominal size (N)	20x145mm
Naure of the surface	Glazed (GL)	Work size	20x145x8.5mm
Group	B la	Intended use	wall finishes, Interior and exterior
Source of samples	our store	Item number of samples	BHTH02126
Quantity of samples	2 cartons (10sheets/ctn)	Date of sampling	January 06, 2020.
Test classification	Regular test	Date of finish	January 15, 2020.
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 I a ( $E_b \leq 0.5\%$ )		
Conclusion of Test	The results conform to the requirement of Annex G of standard EN14411:2016 with respect to the test items.		

Clause	Properties	Test Method	Requirements	Test Result	Verdicts
<b>A</b>	<b>Dimensions and surface quality</b>				
A.1	<b>Length</b> The deviation, of the average size for each tile (4 sides) from the work size.	EN ISO 10545-2	$\pm 0.5\text{mm}$	$-0.3.5\text{mm} \sim +0.3 \text{mm}$	Pass
A.2	<b>Thickness</b> The thickness shall be specified	—	Declared thickness	8.4mm	Pass
	The permissible deviation, of the average thickness of each tile from the work size thickness	EN ISO 10545-2	$\pm 0.5\text{mm}$	$-0.04 \sim 0$	Pass
<b>B</b>	<b>Physical properties</b>				
B.1	<b>Water absorption</b> Percent mass fraction	EN ISO 10545-3	$E_b \leq 0.5\%$	0.42%	Pass
			individual maximum 0.6%	0.36% ~ 0.43%	Pass
B.2	<b>Breaking strength, in N</b>	EN ISO 10545-4	$\geq 700$	1023	Pass
B.3	<b>Modulus of rupture, in <math>\text{N}/\text{mm}^2</math></b> Not applicable to tiles with breaking strength $\geq 3000\text{N}$	EN ISO 10545-4	Mimumum 35	62.3	Pass
			Individual minimum 32	61.5~65.8	Pass
B.6	<b>Thermal shock resistance</b>	EN ISO 10545-9	Pass	Fully resistance	Pass
B.8	<b>Frost resistance</b>	EN ISO 10545-12	Pass	Fully resistance	Pass
B.9	<b>Slipperiness</b>	DIN51130	Declared value	---	---
B.14	<b>Reaction to fire</b>	CWT	Class A1 or A1 <sub>FL</sub>	Used for walls: Class A1 Used for floorings: Class A1 <sub>FL</sub>	Pass

Clause	Properties	Test Method	Requirements	Test Result	Verdicts
<b>C</b>	<b>Chemical properties</b>				
C.1	a) Green staining agent in light oil	EN ISO 10545-14	Minimum class 3	Class 5	Pass
	b) Red staining agent in light oil	EN ISO 10545-14	Minimum class 3	Class 5	Pass
	c) Iodine, 13g/l solution in alcohol	EN ISO 10545-14	Minimum class 3	Class 5	Pass
	d) Olive oil	EN ISO 10545-14	Minimum class 3	Class 5	Pass
C.2	<b>Resistance to chemicals</b>				
	Resistance to household chemicals and swimming pool salts				
	a) Household chemicals: Ammonium chloride, 100g/L	EN ISO 10545-13	Minimum class B	GA	Pass
	b) Swimming pool salts: Sodium hypochlorite solution, 20mg/L	EN ISO 10545-13	Minimum class B	GA	Pass
	Resistance to low concentrations of acids and alkalis				
	a) Hydrochloric acid solution, 3% (v/v)	EN ISO 10545-13	Declared value	GLA	---
	b) Citric acid solution, 100g/L	EN ISO 10545-13	Declared value	GLA	---
	c) Potassium hydroxide, 30g/L	EN ISO 10545-13	Declared value	GLA	---
	Resistance to high concentrations of acids and alkalis				
	a) Hydrochloric acid solution, 18% (v/v)	EN ISO 10545-13	Declared value	GHA	---
	b) Lactic acid, 5% (v/v)	EN ISO 10545-13	Declared value	GHA	---
	c) Potassium hydroxide, 100g/L	EN ISO 10545-13	Declared value	GHA	---

Tested and inspected by Quality Inspection Department of

Ceramic Co.,Ltd.

