



中国认可
国际互认
检测
TESTING
CNAS L1978



TEST REPORT

REPORT NO. : 25202402878

SAMPLES: PORCELAIN TILE

APPLICANT: FOSHAN NINE DEGREE BUILDING
MATERIALS LIMITED

DATE OF TEST: 24/07/2024 – 06/08/2024 (dd/mm/yy)

STATE KEY TESTING LABORATORY OF BUILDING CERAMICS AND SANITARY WARE
COMPREHENSIVE TECHNOLOGY CENTRE OF FOSHAN CUSTOMS



TEST REPORT

Report No: 25202402878

Page 2 of 6

Name of sample	PORCELAIN TILE	Nominal size (N)	150cm×75cm
Nature of the surface	Glazed (GL)	Work size (Sw)	1500mm×750mm×10.5mm
Group	Group B I a, rectified tiles	Description of Samples	The samples are sound, intact and fit for test.
Mark of samples	NINE DEGREE	Quantity of samples	30 Pieces
Applicant	FOSHAN NINE DEGREE BUILDING MATERIALS LIMITED	Address of applicant	A338 CHINA CERAMICS CITY, JIANGWAN 3 ROAD, FOSHAN CITY 528000, GUANGDONG PROVINCE, CHINA
Telephone of applicant	—	Fax of applicant	—
Source of Samples	Samples selected by applicant	Received on	24/07/2024
Test Standard	ISO 13006: 2018 <i>Ceramic tiles – Definitions, classification, characteristics and marking</i>		
Conclusion of Test	The results conform to the requirement of Annex G of standard ISO 13006:2018 with respect to the test items.		
Stamp of Test Unit	 Date: 07/08/2024	Address of Test Unit	Address: 2/F, Building 18, Lanshi International Metal Exchange Center, Kuiqi Road, Chancheng District, Foshan, Guangdong, China (528000) Tel: 86-757-83960558 86-757-83827991 E-mail: fsiqtc@163.com
Notes	1.All tests are carried out conscientiously to the best of our knowledge and ability. This report does not in any respect absolve the other related parties from his contractual and legal obligations. 2.This report shall not be reproduced, except in full, without the prior written approval from the issuing laboratory. 3.The results in this report apply to the samples only. 4.The product information is declared by applicant, and laboratory is not responsible for the authenticity.		

Tested by 杨明 Inspected by 李林 Approved by 肖景

TEST REPORT

Report No: 25202402878

Page 3 of 6

Photo of Samples



TEST REPORT

Report No: 25202402878

Page 4 of 6

ISO 13006:2018 <i>Ceramic tiles – Definitions, classification, characteristics and marking</i> Annex G Dry-pressed ceramic tiles with low water absorption $E_v \leq 0.5\%$ Group B I a						
Clause	Properties	Test Method	Requirements		Results	Verdicts
Table G.1	Dimensions and surface quality					
	Length The deviation, of the average size for each tile from the work size	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$-0.01\% \sim 0$	P
				$\pm 1.0\text{mm}$	$-0.1\text{mm} \sim 0$	P
	Width The deviation, of the average size for each tile from the work size	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$-0.05\% \sim -0.03\%$	P
				$\pm 1.0\text{mm}$	$-0.4\text{mm} \sim -0.2\text{mm}$	P
	Thickness The deviation of the average thickness of each tile from the work size thickness	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 5\%$	$-0.5\% \sim +0.7\%$	P
				$\pm 0.5\text{mm}$	$0 \sim +0.1\text{mm}$	P
	Straightness of sides The maximum deviation from straightness related to the corresponding work sizes					
	Length	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$0 \sim +0.01\%$	P
				$\pm 0.8\text{mm}$	$0 \sim +0.1\text{mm}$	P
	Width	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$+0.01\%$	P
				$\pm 0.8\text{mm}$	$0 \sim +0.1\text{mm}$	P
	Rectangularity The maximum deviation from Rectangularity related to the corresponding work sizes					
	Length	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$+0.02\% \sim +0.03\%$	P
				$\pm 1.5\text{mm}$	$+0.3\text{mm} \sim +0.5\text{mm}$	P
	Width	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.3\%$	$-0.05\% \sim -0.03\%$	P
				$\pm 1.5\text{mm}$	$-0.4\text{mm} \sim -0.2\text{mm}$	P
	Surface flatness: The maximum deviation from flatness					
	a)centre curvature, related to diagonal calculated from the work size;	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.4\%$	$-0.03\% \sim -0.02\%$	P
				$\pm 1.8\text{mm}$	$-0.4\text{mm} \sim -0.3\text{mm}$	P
	b)edge curvature, related to the corresponding work sizes;					
	Length	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.4\%$	$-0.04\% \sim -0.03\%$	P
				$\pm 1.8\text{mm}$	$-0.6\text{mm} \sim -0.4\text{mm}$	P
	Width	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.4\%$	$-0.01\% \sim +0.03\%$	P
				$\pm 1.8\text{mm}$	$0 \sim +0.2\text{mm}$	P
	c)warpage, related to diagonal calculated from the work size.	ISO10545-2:2018	$N \geq 15\text{cm}$	$\pm 0.4\%$	$-0.04\% \sim -0.03\%$	P
				$\pm 1.8\text{mm}$	$-0.6\text{mm} \sim -0.5\text{mm}$	P

TEST REPORT

Report No: 25202402878

Page 5 of 6

ISO 13006:2018 Ceramic tiles – Definitions, classification, characteristics and marking Annex G Dry-pressed ceramic tiles with low water absorption $E_v \leq 0.5\%$ Group B I a					
Clause	Properties	Test Method	Requirements	Results	Verdicts
Table G.1	Surface quality	ISO10545-2:2018	A minimum of 95% of the tiles shall be free from visible defects inspected vertically at 1.0m.	100%	P
	Physical properties				
	Water absorption Percent mass fraction	ISO 10545-3:2018	$E_v \leq 0.5\%$	0.38%	P
			Individual maximum 0.6%	0.33%~0.43%	P
	Breaking strength, in N	ISO 10545-4:2019	≥ 1300	2533	P
	Modulus of rupture, in N/mm ² Not applicable to tiles with breaking strength ≥ 3000 N	ISO 10545-4:2019	Minimum 35	41.8	P
			Individual minimum 32	41.0~43.2	P
	Impact resistance: Coefficient of restitution (COR)	ISO 10545-5: 1996/Cor.1:1997	Test method available	0.85	—
	Abrasion resistance Resistance to surface abrasion of glazed tiles intended for use on floors	ISO 10545-7:1996	Report abrasion class	Class 3	—
			Report cycles passed	1500	—
	Coefficient of linear thermal expansion: from ambient temperature to 100°C	ISO 10545-8:2014	Test method available	$5.4 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$	—
	Thermal shock resistance	ISO 10545-9:2013	Test method available	Fully resistance	—
	Crazing resistance: glazed tiles	ISO 10545-11:1994	Required	Fully resistance	P
	Moisture expansion, in mm/m	ISO 10545-10:2021	Test method available	<0.06	—
	Frost resistance	ISO 10545-12: 1995/Cor1:1997	Required	Fully resistance	P
	Chemical properties				
	Resistance to staining				
	a)Green staining agent in light oil	ISO 10545-14:2015	Minimum Class 3	Class 5	P
	b)Red staining agent in light oil	ISO 10545-14:2015	Minimum Class 3	Class 5	P
	c)Iodine, 13g/L solution in alcohol	ISO 10545-14:2015	Minimum Class 3	Class 5	P
	d)Olive oil	ISO 10545-14:2015	Minimum Class 3	Class 5	P
	Resistance to chemicals				
	Resistance to household chemicals and swimming pool salts				
	a)Household chemicals: Ammonium chloride, 100g/L	ISO 10545-13:2016	Minimum B	A	P
	b)Swimming pool salts: Sodium hypochlorite solution, 20mg/L	ISO 10545-13:2016	Minimum B	A	P

TEST REPORT

Report No: 25202402878

Page 6 of 6

ISO 13006:2018 Ceramic tiles – Definitions, classification, characteristics and marking Annex G Dry-pressed ceramic tiles with low water absorption $E_v \leq 0.5\%$ Group B I a					
Clause	Properties	Test Method	Requirements	Results	Verdicts
Table G.1	Resistance to low concentrations of acids and alkalis				
	a)Hydrochloric acid solution, 3% (v/v)	ISO 10545-13:2016	Manufacturer to state classification	LA	—
	b)Citric acid solution, 100g/L	ISO 10545-13:2016	Manufacturer to state classification	LA	—
	c)Potassium hydroxide, 30g/L	ISO 10545-13:2016	Manufacturer to state classification	LA	—
	Resistance to high concentrations of acids and alkalis				
	a)Hydrochloric acid solution, 18% (v/v)	ISO 10545-13:2016	Test method available	HA	—
	b)Lactic acid, 5% (v/v)	ISO 10545-13:2016	Test method available	HA	—
	c) Potassium hydroxide, 100g/L	ISO 10545-13:2016	Test method available	HA	—
	Lead and Cadmium release				
	a)Lead release, in mg/dm ²	ISO 10545-15:2021	Test method available	<0.02	—
	b)Cadmium release, in mg/dm ²	ISO 10545-15:2021	Test method available	<0.003	—

Possible test case verdicts

1. P(ass) : Test item does meet the requirement.
2. F(ail) : Test item does not meet the requirement.
3. —: Verdict was not carried out.
4. N/A : Test case does not apply to the test item.

*** **

End of Test Report