Private Joint Stock Company
KHARKIV TILE PLANT
Kharkiv-61106,
Heroiv Kharkova Avenue, 297.
т. +3 80675464517
т. +3 80980559453
e-mail: pokroeva@ukr.net

2O1516
ДСТУ ISO/IEC 17025

AFFIRM:
Chief technologist
_____Pokroieva Y.A

ТОВАРИСТВО «ХАРКІВСЬКИЙ ВИПРОБУВАЛЬНИЙ ЦИНКОВИЙ ЗАВОД» ПРИВАТНЕ АКЦІОНЕРНЕ
УКРАЇНА
СЛУЖБА ВХІДНОГО КОНТРОЛЮ
М.ХАРКІВ
ЛАБОРАТОРІЯ

TEST REPORT
LABORATORY RESEARCH OF FINISHED PRODUCTS №105
from 23.08.2023

Dry-pressed ceramic floor tiles of Group BIa (Eb ≤ 0,5 %)
For floor cladding

«WESTMINSTER»,
60x250mm

Number of sheets -5

2023 year

The list of testing equipment and measuring instruments

Table № 2

Name	Designation	Metrological characteristics	Production serial number
1	2	3	4
Device for determining the strength of the tiles bending	Crometro CR4/5-E3	The maximum relative deviation of the test load of the device in the range from 100 to 700 kgf. Specified value ± 3%. Resulting value ± 2.9%. The maximum relative value of the amplitude of the readings of the instrument load in the range from 100 to 700kgf. Specified value ±2%. Resulting value ±1,6%. Expanded uncertainty during calibration 0,3-0,8	Prod. № 063 ser. № 4310001 Certificate of calibration №21/477K from 29.10.2022
Autoclave	C5	The equipment meets the requirements of EN ISO 10545-11	Prod. № 067P3 ser. № 93010462 Certificate of calibration №05/0284K from 08.06.2023
Laboratory electronic scales	AXIS,AD 2000	Expanded uncertainty during calibration, g ± 0,018	Prod. № 4835 ser. № 93010216 Certificate of calibration №08/0106K from 07.06.2023
Laboratory electronic scales	BTHE-6H1K	Control of the State Enterprise « Kharkovstandartmetrology ». Valid.	Prod. № 026 Certificate of calibration №04/0011K from 07.06.2023
Callipers	0-150mm	Meets the requirements: Caliper "Mikrotekh",Ukraine, division price 0,05 mm Expandet measurement uncertainty, U, 0,29mm	Prod. № 10294 Certificate of calibration №03/0251K from 06.06.2023
Instrument for testing tiles for water absorption in vacuum	Electrocontact vacuum gauge EKM-1У	Meets the requirements of EN ISO 10545-3	Prod. № V 130 ser. № 93009817 Certificate of calibration №05/0756K from 18.09.2022
Psychrometric hygrometer	VIT-1	Expanded measurement uncertainty, °C ± 0,04	Prod.№ 23/3 Certificate of calibration №05/0205K from 16.05.2023
Low-temperature laboratory electric furnace	SNOL 67/350	Meets the requirements «Low-temperature laboratory electric furnace SNOL 67/350. Pasport» and allowed to use.	Prod. № 15432 ser.. № 4310002 Certificate of calibration №05/557K from 04.04.2023
Freezer laboratory	ZUNT-T 200 COMF, Poland	Temperature range of laboratory freezers from -40°C to 0°C Expanded measurement uncertainty, °C ± 1,0	Prod. №ZT20BF170077 ser. № 930011609 Certificate of calibration №05/1440K from 13.12.2022

1. Customer:
"Golden Tile" Kyiv-03680, 50 Mashinobudivna Street, tel. +38 (044) 408-09-00
2. Test object: Ceramic tiles
3. DSTU EN 14411:2019 (EN14411:2012, IDT) Ceramic tiles – Definitions, classification, characteristics, evaluation of conformity and marking.
4. Samples received date: 24.07.2023
5. Sample Collection Act: No537 dated 24.07.2023
6. Purpose of the test:
6.1. Customer:
"Golden Tile" Kyiv-03680, 50 Mashinobudivna Street, tel. +38 (044) 408-09-00
6.2. Test object: Ceramic tiles
Test of physical and mechanical properties of ceramic tiles. for compliance with the requirements of DSTU EN 14411:2019 (EN14411:2012, IDT) Ceramic tiles – Definitions, classification, characteristics, evaluation of conformity and marking. ISO 10545-2, ISO 10545-3, ISO 10545-4, ISO 10545-7, ISO 10545-9, ISO 10545-11, ISO 10545-12, ISO 10545-13, ISO 10545-14, ISO 10545-176 CEN/TS 16165:2012, Annex C, table № 2,3
7. Place and time of test:
24.07.2023- 25.07.2023 Laboratory of the Incoming Control Service - Kharkiv - 61106, Heroiv Kharkova Avenue, 297.
8. Testing equipment:
The list of testing equipment and measuring instruments are given in table №2. At the time of testing, all measuring and testing equipment have valid calibration certificates.
9. Program and method of the test:
Test methods are given in table № 3. Non-standardized techniques are not used in tests.
10. Test results:
Test results are given in table № 3, № 4
All test results apply only to the test samples.
11. Conclusion:
Testing samples of ceramic tiles comply with the requirements of State Standards of DSTU EN 14411:2019 (EN14411:2012, IDT) Ceramic tiles – Definitions, classification, characteristics, evaluation of conformity and marking Dry pressed glazed tiles, EN 14411:2012 Annex G, group BIa
Test executors:
Leading laboratory engineer T.L. Kovrihina Head of technical control department T.V. Kaban

Test results

Table № 3.

	Name of metric	Name of the Regulatory Document and the number of articles of the RD	Requirements of EN14411:2012	Actual (arithmetic mean) values for samples
1.	**Size of the tile**			
1.1	The rejection of the average length of the faces of each tile (two or four faces) from the technological size, %	EN ISO 10545-2	±0,6	0,16
Deklared thickness, mm			10,0	
1.2	The rejection of the average thickness of face of each tile from the technological size %	EN ISO 10545-2	±5	2,0
1.3	**Linearity of the faces,** maximum rejection from the technological size,%	EN ISO 10545-2	±0,5	-
1.4	**Rectangularity,** maximum rejection from the technological size,%	EN ISO 10545-2	±0,5	-
2.	**Planarity** Maximum rejection:			
2.1	a) bulge / incurvation toward the center relative to the diagonal, calculated according to the technological size,%	EN ISO 10545-2	±0,5	0,117
2.2	b) bulge / incurvation of faces toward appropriate technological size, %	EN ISO 10545-2	±0,5	-
2.3	c) skewness relative to the diagonal, calculated according to the technological size,%	EN ISO 10545-2	±0,5	-

Test results

Table № 4.

Size of the tile № of batch	Name of the Regulatory Document and the number of articles of the RD	Name of indicators	Values of characteristics according to RD	Actual Values of characteristics
1.	2.	3.	4.	5.
«WESTMINSTER», 60x250mm	EN ISO 10545-3	Water absorption, %	Eb ≤ 0,5 %	1. 0,26 2. 0,29 3. 0,27 4. 0,28 5. 0,25 6. 0,17 7. 0,26 8. 0,27 9. 0,25 10. 0,16 **average – 0,25**
	EN ISO 10545-4	Flexural tensile strength or modulus of rupture	Minimum 35,0 N/mm^2	1. 54,6 2. 55,1 3. 54,8 4. 55,3 5. 55,1 6. 53,9 7. 54,7 8. 54,5 9. 54,7 10. 54,7 **average** – 54,7
	EN ISO 10545-4	Breaking strength	Not less than 1300 N	1. 2983,6 2. 3007,1 3. 3001,2 4. 2991,1 5. 2972,5 6. 2973,4 7. 2992,4 8. 2961,4 9. 2985,3 10. 2991,1 **average** - 2985,9
	EN ISO 10545-9	Thermal resistance, C°	Heating and cooling in the temperature range from 150 ° C to 200 ° C for at least 10 cycles	10 cycles
	EN ISO 10545-11	Resistance to cracking of glaze	Withstanding of the temperature 159 ± 1 °C and a pressure of 500 ± 20 kPa for 2 hours at least one cycle without changes on the fase of the tile	More than 2 cycles
	EN ISO 10545-12	Definition frost resistance	Alternating action temperatures +5°C - 5°C not less than 100 cycles. Water with temperature 20 ± 5 °C	More than 100 cycles
	EN ISO 10545-13	Chemical resistance of glaze	Resistance to low concentrations of acids and alkalis Resistance to high concentrations of acids and alkalis Resistance to household chemicals and swimming pool salts	Class GLA Class GHA Class GA
	EN ISO 10545-14	Determination of resistance to staining	Min class 3	**3 class**