



Certificate No. : TC-6265

NATIONAL CERA LAB

CERAMIC LABORATORY

Shop No. 16, 17, Ground Floor, Dariyalal Plaza,
Nr. Argil Ceramic, 8-A, N/H, Morbi - 363 642 (Guj.) INDIA.

Ph. : 02822 244049, Mo. : 98252 62649, 96622 97005, 98257 99418
E-mail : nationalceralab@rediffmail.com

As per all Countries Export report of Wall, Floor, Vitrified Tiles & Sanitary Wares

Ref. No.

Date :

Report no NCL/Glazed Porcelain Tiles /ISO/12/331/2022-23
URL NO. URL - TC626522000000256F

Issue date of report Dec. 26. 2022

TEST REPORT

Page 1 of 2

Name of Company
Company Address

Tile Merchant,
Dockrells Complex, Ballymount Rd Upper, Ballymount, Dublin 24, Rep. of Ireland

Name and Identity of test sample Job Card No:-NCL/2022/D and P/250

Receive Date 15th Dec. 2022

Date of Test 15/12/2022 to 26/12/2022 (dd/mm/yy)

Type Dry Press Ceramic Tiles with low water absorption $E \leq 0.5\%$ Group BI a
Nominal size (N) 600X600 mm (Rectified)
Work Size (Sw) 600x600x8 mm (Rectified)
Nature of surface Glazed (GL)
Party Given description Ceramic Glazed Porcelain Tiles. (PGVT)
Received Box ICON

Quantity of sample 15 Pieces.
Reference Test standard ISO 13006:2018 - Annex G , Dry Press Ceramic Tiles with low water absorption ($E_v \leq 0.5\%$) Group BI a

No of pages of the report 2 Page

Test Standard ISO 13006:2018 Ceramic tiles - Definitions , classification , characteristic and marking
Annex G Dry pressed ceramic tiles $E \leq 0.5\%$ Group BI a

	Test Name	Standard No. for test method
1	Determination of Dimensions & Surface Quality	ISO 10545 - 2 : 2019
A	Length and Width	ISO 10545 - 2 : 2019
B	Thickness	ISO 10545 - 2 : 2019
C	Straightness of side	ISO 10545 - 2 : 2019
D	Rectangularity	ISO 10545 - 2 : 2019
2	Surface Flatness	ISO 10545 - 2 : 2019
a	Centre curvature	ISO 10545 - 2 : 2019
b	Edge curvature	ISO 10545 - 2 : 2019
3	Determination Water Absorption in %	ISO 10545 - 3 : 2018
4	Determination of Breaking Strength in N, & Modulus of Rupture N/mm ³	ISO 10545 - 4 : 2019

Tested by

N J Kavar

Nimesh Kavar (Testing Eng.)

Checked & Verified By

Bera

Aritra Bera (Testing Eng.)

Reviewed & Approved By

26/12/2022

Jerambhai Kavar(QM/TM)



Certificate No. : TC-6265

NATIONAL CERA LAB

CERAMIC LABORATORY

Shop No. 16, 17, Ground Floor, Dariyalal Plaza,
Nr. Argil Ceramic, 8-A, N/H, Morbi - 363 642 (Guj.) INDIA.

Ph. : 02822 244049, Mo. : 98252 62649, 96622 97005, 98257 99418
E-mail : nationalceralab@rediffmail.com

As per all Countries Export report of Wall, Floor, Vitrified Tiles & Sanitary Wares

Ref. No.

Report no NCL/Glazed Porcelain Tiles /ISO/12/331/2022-23
URL NO. URL - TC626522000000256F

Issue date of report

Date :
Dec. 26. 2022

TEST REPORT

Page 2 of 2

Kind Of Test	Test Method	Requirements	Result
1 Dimensions and Surface Quality		N ≥ 15 cm Whichever is less is applicable	
A Length & Width	ISO 10545-2:2019	±0.3%	Aveg. 0.01%
The deviation in mm of the average size of each tile (2 sides) from the work size		±1 mm	Aveg. -0.00%
			Avg. 0.04mm
			Avg. -0.00mm
B Thickness	ISO 10545-2:2019	±5%	Aveg. 2.13%
Party declared 8.25 mm			Aveg. -0.00%
The deviation in mm of the average thickness of 10 tile from the work size thickness		±0.5 mm	Avg. 0.17mm
			Avg. -0.08mm
C Straightness of Sides			0
The maximum deviation from straightness related to the corresponding work size			
Length & Width	ISO 10545-2:2019	±0.3%	Max 0.04%
			Max - 0.04%
		±0.8 mm	Max 0.24mm
			Max 0.25mm
D Rectangularity			
The maximum deviation from straightness related to the corresponding work size			
Length & Width	ISO 10545-2:2019	±0.3%	Max 0.05%
			Max - 0.05%
		±1.5 mm	Max 0.32mm
			Max - 0.31mm
2 Surface Flatness		The maximum deviation from flatness	
a) Centre curvature related to diagonal calculated from the work size.			
Length & Width	ISO 10545-2:2019	±0.4%	Max 0.05%
			Max - 0.00%
		±1.8 mm	Max 0.44mm
			Max - 0.00mm
b) Edge curvature related to the corresponding work size.			
Length & Width	ISO 10545-2:2019	±0.4%	Max 0.08%
			Max - 0.00%
		±1.8 mm	Max 0.49mm
			Max - 0.00mm
3 Water Absorption %	ISO 10545-3:2018	Ev ≤ 0.5 % Individual maximum 0.6%	Average 0.047% Maximum 0.086%
4 Breaking Strength in N	ISO 10545-4:2019	Not less than 1300 Thickness ≥ 7.5 mm	Average 1823.13 N Minimum 1547.34 N
4 Modulus of Rupture (MOR)	ISO 10545-4:2019	Minimum 35 Individual minimum 32	Average 50.30 N/mm ³ Minimum 42.50 N/mm ³

Notes -

- 1 All inspection are carried out conscientiously to the best of our knowledge and ability.
- 2 This report shall not be reproduced, except in full , without the prior written approval from the issuing laboratory.
- 3 The result in this report apply to the sample only.

Tested by *N J Kavar*
Nimesh Kavar (Testing Eng.)

Checked & Verified By *Bera*
Aritra Bera (Testing Eng.)
End of the Test Report

Reviewed & Approved By
Jerambhai Kavar(QM/TM)

26/12/2022

NATIONAL CERA LAB

CERAMIC LABORATORY

Shop No. 16, 17, Ground Floor, Dariyalal Plaza,
Nr. Argil Ceramic, 8-A, N/H, Morbi - 363 642 (Guj.) INDIA.

Ph. : 02822 244049, Mo. : 98252 62649, 96622 97005, 98257 99418
E-mail : nationalceralab@rediffmail.com

As per all Countries Export report of Wall, Floor, Vitrified Tiles & Sanitary Wares

Ref. No.

Date :

Report no NCL/Glazed Porcelain Tiles /ISO/12/331A/2022-23

Issue date of report Dec. 26. 2022

TEST REPORT

Page 1 of 3

Name of Company
Company Address
Name and Identity of test sample
Receive Date
Date of Test
Type
Nominal size (N)
Work Size (Sw)
Nature of surface
Party Given description
Received Box
Quantity of sample
Reference Test standard
No of pages of the report
Test Standard

Tile Merchant,
Dockrells Complex, Ballymount Rd Upper, Ballymount, Dublin 24, Rep. of Ireland
Ceramic Tiles/ NCL/2022/D and P/250A
15th Dec. 2022
15/12/2022 to 26/12/2022 (dd/mm/yy)
Dry Press Ceramic Tiles with low water absorption $E \leq 0.5\%$ Group BI a
600X600 mm (Rectified)
600x600x8.0 mm (Rectified)
Glazed (GL)
Ceramic Glazed Porcelain Tiles. (PGVT)
ICON
15 Pieces.
ISO 13006:2018 - Annex G , Dry Press Ceramic Tiles with low water absorption ($E_v \leq 0.5\%$) Group BI a
3 Page
ISO 13006:2018 Ceramic tiles - Definitions , classification , characteristic and marking
Annex G Dry pressed ceramic tiles $E \leq 0.5\%$ Group BI a

Test Name	Standard No. for test method
1 Surface Flatness	ISO 10545 - 2 : 2019
Warpage	ISO 10545 - 2 : 2019
2 Surface Quality	ISO 10545 - 2 : 2019
3 Resistance to Surface Abrasion	ISO 10545 - 7 : 2007
4 Coefficient of Linear Thermal Expansion	ISO 10545 - 8 : 2016
5 Thermal Shock Resistance	ISO 10545 - 9 : 2016
6 Crazeing Resistance	ISO 10545 - 11 : 2007
7 Frost Resistance	ISO 10545 - 12 : 2007
8 Moisture Expansion mm/m	ISO 10545 - 10 : 2006
9 Small colour differences	ISO 10545 - 16 : 2014
10 Impact Resistance	ISO 10545 - 5 : 2006
11 Bulk Density , in (g/cc)	ISO 10545 - 3 : 2018
12 Resistance to Stain	ISO 10545 - 14 : 2016
13 Resistance To Low Concentration of Acid & Alkali	ISO 10545 - 13 : 2018
14 Resistance To High Concentration of Acid & Alkali	ISO 10545 - 13 : 2018
15 Resistance to house chemical	ISO 10545 - 13 : 2018
16 Resistance to swimming pool salt	ISO 10545 - 13 : 2018
17 Lead and Cadmium Release in mg/dm ²	ISO 10545 - 15 : 2006

Tested by

N J Kavar

Nimesh Kavar (Testing Eng.)

Checked & Verified By

A. Bera

Aritra Bera (Testing Eng.)

Reviewed & Approved By

J. Kavar

Jerambhai Kavar(QM/TM)

NATIONAL CERA LAB

CERAMIC LABORATORY

Shop No. 16, 17, Ground Floor, Dariyalal Plaza,
Nr. Argil Ceramic, 8-A, N/H, Morbi - 363 642 (Guj.) INDIA.

Ph. : 02822 244049, Mo. : 98252 62649, 96622 97005, 98257 99418
E-mail : nationalceralab@rediffmail.com

As per all Countries Export report of Wall, Floor, Vittrified Tiles & Sanitary Wares

Ref. No.

Date :

Report no NCL/Glazed Porcelain Tiles /ISO/12/331A/2022-23

Issue date of report

Dec. 26. 2022

TEST REPORT

Page 2 of 3

Kind Of Test	Test Method	Requirements	Result
1 Surface Flatness The maximum deviation from flatness			
Warpage related to diagonal calculated from the work size.		N ≥ 15 cm Whichever is less is applicable	
Length & With	ISO 10545-2:2019	±0.4%	Max 0.05%
			Max - 0.00%
		±1.8 mm	Max 0.43mm
			Max - 0.00mm
2 Surface Quality	ISO 10545-2:2019	Minimum 95% of tile shall be free from visible defects that would impair the appearance of a major area of tiles.	100%
3 Resistance to Surface Abrasion			
b) Resistance to deep abrasion of unglazed tiles removed volume,	ISO 10545-6:2014	Report abrasion class and cycles passed	Class - III 1500 Revolution pass
4 Coefficient of Liner Thermal Expansion from ambient temperature to 100°C	ISO 10545-8:2016	9X10 ⁻⁶ Max	4.78x10 ⁻⁶
5 Thermal Shock Resistance	ISO 10545-9:2016	Test method available	Fully resistance
6 Crazeing Resistance	ISO 10545-11:2007	Two cycle must pass	Fully resistance
7 Frost resistance	ISO 10545-12:2007	Required	N/A
8 Moisture Expansion mm/m	ISO 10545-10:2006	Test method available	0.004 mm/m
9 Small colour differences	ISO 10545-16:2014	Plain coloured tiles only where required GL: Δ < 0.75	N/A
10 Impact Resistance Coefficient of restitution (COR)	ISO 10545-5:2006	Test method available	0.81



NATIONAL CERA LAB

CERAMIC LABORATORY

Shop No. 16, 17, Ground Floor, Dariyalal Plaza,
Nr. Argil Ceramic, 8-A, N/H, Morbi - 363 642 (Guj.) INDIA.

Ph. : 02822 244049, Mo. : 98252 62649, 96622 97005, 98257 99418
E-mail : nationalceralab@rediffmail.com

As per all Countries Export report of Wall, Floor, Vitrified Tiles & Sanitary Wares

Ref. No.

Date :

Report no NCL/Glazed Porcelain Tiles /ISO/12/331A/2022-23

Issue date of report

Dec. 26. 2022

TEST REPORT

Page 3 of 3

	Kind Of Test	Test Method	Requirements	Result
11	Bulk Density , in (g/cc)	ISO 10545-3:2018	2.2 min	2.2955 g/cc
Chemical Properties				
13	Resistance to staining			
	a) Green stain in light oil b) Red stain in light oil c) Iodine , 13g/L in alcohol d) Olive oil	ISO 10545-14:2016	Min Class - 3 Min Class - 3 Min Class - 3 Min Class - 3	Class 5 Class 5 Class 5 Class 5
14	Resistance to Low Concentration of Acid & Alkali			
	a) Hydrochloric Acid solution 3% v/v b) Citric Acid Soln. 100gm/L c) Potassium Hydroxide Soln. 30gm/L	ISO 10545-13:2018	Manufacturer to state classification Manufacturer to state classification Manufacturer to state classification	GLA GLA GLA
15	Resistance to High Concentration of Acid & Alkali			
	a) Hydrochloric Acid solution 18% v/v b) Lactic acid 5% v/v c) Potassium Hydroxide Soln. 100gm/L	ISO 10545-13:2018	Test method available Test method available Test method available	GHA GHA GHB
16	House hold chemical resistance Ammonium chloride solution 100gm/L	ISO 10545-13:2018	Minimum Class B	GA
17	Swimming pool salt : Sodium Hypochlorite solution 20mg/L		Minimum Class B	GA
18	Lead And Cadmium Releas			
	Lead release, in mg/dm ²	ISO 10545-15:2006	Test method available	0.011mg/dm ²
	Cadmium release , in mg/dm ²	ISO 10545-15:2006	Test method available	0.008mg/dm ²



Notes -

- 1 All inspection are carried out conscientiously to the best of our knowledge and ability.
- 2 This report shall not be reproduced, except in full , without the prior written approval from the issuing laboratory.
- 3 The result in this report apply to the sample only.

End of the Test Report