

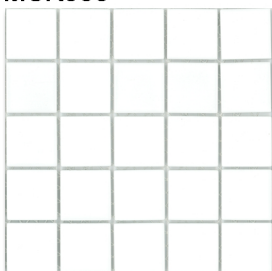


MSK131
2SR1 BL 7/R

MSK124
2SR1 BL 4/R

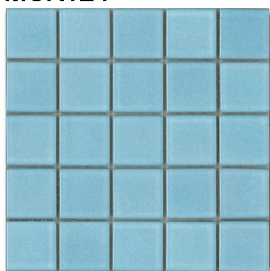
2SR1 SERIES
GLAZED MOSAIC TILE

MSK003



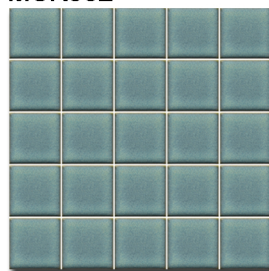
2SR1 6110

MSK124



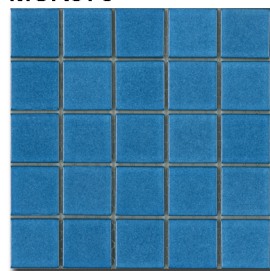
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MSK032



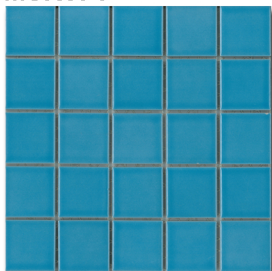
2SR1 BL 3

MSK070



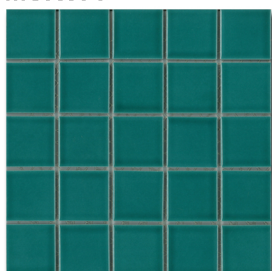
2SR1 BL 9/R

MSK074



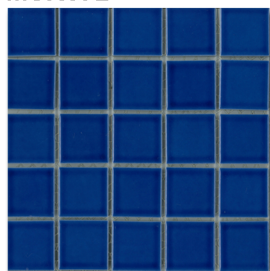
2SR1 5496

MSK079



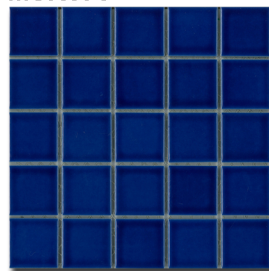
2SR1 5434

MSK072



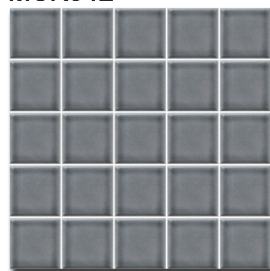
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MSK078



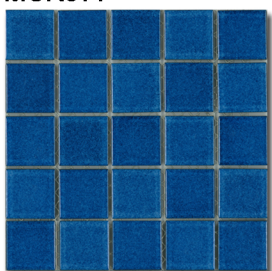
2SR1 5493

MSK042



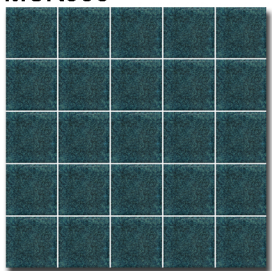
2SR1 STEEL GREY

MSK077



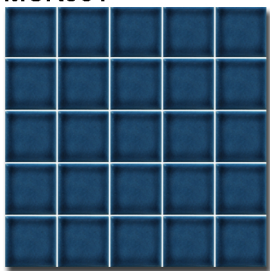
2SR1 BL 6/R

MSK033



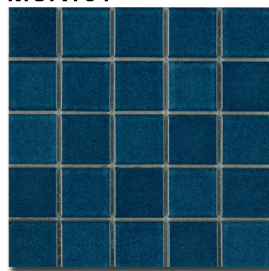
2SR1 BL 13

MSK081



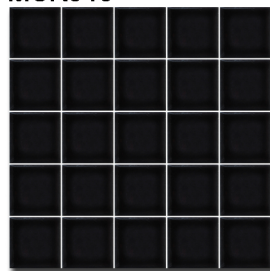
2SR1 5437

MSK131



2SR1 BL 7/R

MSK040



2SR1 5790



General

In general GNS Ceramics' mosaics are suitable for use in swimming pools. They are not suitable for use in areas that are affected by abrasion, excessive vibration and movement, impact, thermal and mechanical shock. We do not recommend tiling on a fibreglass substrate.

Our ranges include the 47x47mm MSK series:

MSK003	2SR1-6110 GLOSS WHITE MOSAIC 47X47	MSK074	2SR1-5496 GLOSS SKY BLUE MOSAIC 47X47
MSK032	2SR1-BL-3 GLOSS SAGE MOSAIC 47X47	MSK077	2SR1-BL-6 GLOSS ROYAL BLUE MOSAIC 47X47
MSK033	2SR1-BL-13 GLOSS FOREST GREEN MOSAIC 47X47	MSK078	2SR1-5493 GLOSS ULTRAMARINE MOSAIC 47X47
MSK040	2SR1-5790 GLOSS CHARCOAL SHADOW MOSAIC 47X47	MSK079	2SR1-5434 GLOSS TEAL MOSAIC 47X47
MSK042	2SR1-STEEL GREY GLOSS MOSAIC 47X47	MSK081	2SR1-5437 GLOSS LAGOON BLUE MOSAIC 47X47
MSK070	2SR1-BL-9 GLOSS LIGHT COBALT BLUE MOSAIC 47X47	MSK124	2SR1-BL-4 GLOSS AQUA MOSAIC 47X47
MSK072	2SR1-5494 GLOSS SAPPHIRE MOSAIC 47X47	MSK131	2SR1-BL-7 GLOSS AZURE BLUE MOSAIC 47X47

Installation

It should be noted that tiles are only one component of a much larger building system. It is our experience that failure of any tiling system is very often the result of a combination of factors. For example; inappropriate design, type of substrate, surface preparation, temperature during installation, adhesives, incompatibility of products, product failure, environmental factors skill and knowledge of the installers etc; the latter being supplied or controlled by a variety of manufacturers and tradesmen. GNS Ceramics has no involvement in the design, selling and installation processes and once goods have been dispatched from our warehouse we have no control over where and how these products are used. As a result the project manager, and or the tiler are the only people in a position to ensure that all the components used in a project are compatible and that the product is installed in accordance with the Australian Building Code and the Australian Standards.

We recommend:

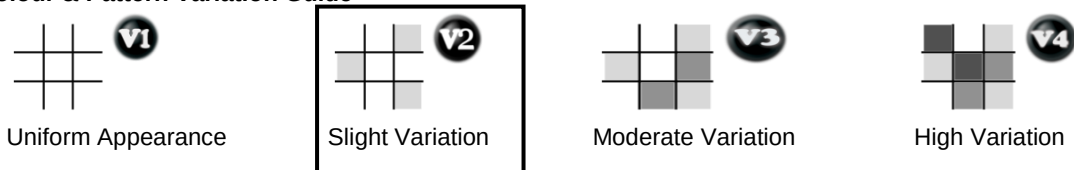
- all work is carried out by licensed contractors experienced in the laying of mosaic tiles. Installation shall be in accordance with the Australian Building Code and AS3958 part 1 and 2 "Guide to the installation of ceramic tiles" and "Guide to the selection of a ceramic tiling system" respectively.
- our mosaic tiles be fixed utilizing
 - The floating method of installation
 - either a combined epoxy grout and adhesive , or
 - a thick bed combined latex fortified cementitious grout and adhesive.
- the grout and adhesives used be chemically resistant and suitable for use externally in full immersion with none or low porous materials.
- all mosaics are stored in a clean dry space. Do not allow the tiles to get wet or damp prior to installation.

Note: Glass mosaics are translucent. We therefore recommend that grout and adhesives are of the same colour. The use of contrasting or different colours may result in the consumer's expectations not being met. We also recommend that adhesives be applied with a view to removing voids as these may be visible through the glass.

Cleaning and Maintenance

- Do not use abrasive cleaners and chemicals, which could permanently scratch and damage the surface of the tile. For daily cleaning, we recommend the use of a mild detergent. Should a more vigorous cleaning programme be required we recommend the use of a proprietary tile cleaner from a specialty tile supplier.

Colour & Pattern Variation Guide



GNS Ceramics is satisfied that the above ranges of mosaic tiles are first quality and meets the requirements of the Australian Standards. In addition, we are also satisfied that these tiles meet the statutory conditions and statutory warranties required by the Australian consumer law and Competition and Consumer Act 2010.

Testing Laboratory

SCG Ceramics Public CO.LTD.

33/1 Moo 2, Suvannasorn Rd, Khokyaee, Nongkhae Distric, Saraburi 18230, Thailand

Tel : 036-382888 Ext. 359, 338, 716



CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/053
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-6110 (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.21	0.64	-0.43	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	-3.33	-1.67	-5.00	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.07			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	81.77			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1358.81			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	4:12000			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

Reported by : Kanda Chomngam

Date : 28/05/2019

Approved by : Monthathip Pongsiri

Date : 28/05/2019

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/044
ISSUE DATE 25/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-BL-3R(NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, S_w	± 1.2 %	0.00	0.21	-0.21	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	-1.67	0.00	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.06			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	80.14			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1481.60			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	3:1500			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

Reported by : Kanda Chomngam
Date : 25/05/2019

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Date : 25/05/2019

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/045
ISSUE DATE 25/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-BL-13R(NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.21	0.43	0.00	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	1.67	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.06			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	95.87			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1830.24			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLC	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLC	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GC	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GC	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/046
ISSUE DATE 25/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-5790 (NET/PACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>Sw</i>	± 1.2 %	0.64	0.85	0.43	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	5.00	5.00	3.33	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.04			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	85.77			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1803.86			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	1:150			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/047
ISSUE DATE 25/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1- STEEL GREY (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	-0.43	-0.21	-0.64	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	1.67	1.67	0.00	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.09			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	102.31			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1999.68			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/054
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-BL-9R (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>Sw</i>	± 1.2 %	0.21	0.43	-0.43	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	1.67	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.07			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	87.89			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1632.84			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	3:750			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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Date : 28/05/2019

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/050
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-5496 (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.00	0.21	-0.21	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	3.33	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.12			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	87.03			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1704.47			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	3:750			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/055
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-BL-6/R (NET/PACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.00	0.64	-0.64	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	1.67	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.05			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	86.49			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1672.34			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLC	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLC	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GC	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GC	GA			

Reported by : Kanda Chomngam

Date : 28/05/2019

Approved by : Monthathip Pongsiri

Date : 28/05/2019

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Testing Laboratory

SCG Ceramics Public CO.LTD.

33/1 Moo 2, Suvannasorn Rd, Khokyaee, Nongkhae Distric, Saraburi 18230, Thailand

Tel : 036-382888 Ext. 359, 338, 716



CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/051
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-5493 (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, S_w	± 1.2 %	0.00	0.21	-0.21	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	3.33	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.06			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	85.77			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1613.65			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/052
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-5434 (NET/PACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.43	0.64	-0.21	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	1.67	0.00	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.06			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	122.27			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1909.33			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	3:1500			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/049
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-5437 (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>S_w</i>	± 1.2 %	0.21	0.43	0.00	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	1.67	0.00	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.04			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	82.64			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1593.18			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 1:150 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLA			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/056
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1 BL-4R (NETPACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, S_w	± 1.2 %	-0.43	0.00	-1.06	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	0.00	0.00	-1.67	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.10			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	97.20			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1900.94			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	3:750			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GB	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GB	GA			

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CERTIFICATE OF QUALITY PRODUCT

REPORT NO 2019/057
ISSUE DATE 28/05/2019
CUSTOMER Sincharoen Panpeng
PRODUCT MT 2SR1-BL-7/R (NET/PACK 10) PM
CERAMIC TILES Glazed Tiles Group BIa, Eb ≤ 0.5%
WORK SIZE 47.0x47.0x6.0 mm

Characteristics	Specification ISO 13006: 1998	Result			Test Methods
		Avg	Max	Min	
1. Width & Length: the deviation, in percent, of the average size for each tile (two or four sides) from the work size, S_w	± 1.2 %	0.00	0.43	-0.64	ISO 10545-2
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 10.0 %	-1.67	0.00	-3.33	
3. Water absorption, per cent mass fraction	Eb ≤ 0.5 %	0.05			ISO 10545-3
4. Modulus of rupture in N/mm²	Minimum 35	87.11			ISO 10545-4
5. Breaking strength, N Thickness < 7.5 mm	Not less than 700	1644.77			ISO 10545-4
6. Resistance to surface abrasion of glazed tiles	Minimum Class 2:600 cycle	2:600			ISO 10545-7
7. Crazing resistance	Resisted	Resisted			ISO 10545-11
8. Frost Resistance	Resisted	Resisted			ISO 10545-12
9. Resistance to staining					ISO 10545-14
a) Stains leaving a trace (pastes)	Minimum Class 3	Class 5			
b) Stains having chemical/ oxidizing action	Minimum Class 3	Class 5			
c) Stains, forming a film	Minimum Class 3	Class 5			
10. Resistance to chemicals					ISO 10545-13
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLC	GLB			
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLC	GLB			
c) Resistance to household chemicals , glazed tiles	Minimum Class GC	GA			
d) Resistance to swimming pool salts, glazed tiles	Minimum Class GC	GA			

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