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## **CERTIFICATE OF QUALITY PRODUCT**

**REPORT NO** 2015/492 **ISSUE DATE** 30 Sep 15

**CUSTOMER** สินเจริญ พันธ์เพ็ง

**PRODUCT** FT WALTON NOCE (US) 12X12 PM **CERAMIC TILES** Glazed Tiles Group Blla, 3% Eb ≤ 6%

Work size: 298.0x298.0x7.5mm

Characteristics	Specification		Result			
	ISO 13006: 2012( E )	Avg	Max	Min	Test Methods	
<b>1.Width &amp; Length:</b> the deviation, in percent, of the average size for each tile (two or four sides) from the work size, <i>Sw</i>	± 0.6 %	0.17	0.30	0.03	ISO 10545-2	
2. Thickness, the deviation, in percent, of the average thickness of each tile from the work size, thickness	± 5 %	3.07	4.93	2.00		
<b>3. Straightness of sides,</b> the maximum deviation from straightness, in percent, related to the corresponding work size	± 0.5 %		0.06	0.04		
<b>4. Rectangularity,</b> the maximum deviation from rectangularity, in percent, related to the corresponding work size	± 0.5%		0.11	0.03		
5. Surface flatness						
a) centre curvature, related to diagonal calculated from the work sizes. $ \\$	± 0.5 %		0.17	-0.01		
b) edge curvature, related to the corresponding work sizes.	± 0.5 %		0.08	-0.07		
c) warpage, related to diagonal calculated from the work sizes.	± 0.5 %		0.13	0.03		
6. Water absorption, per cent mass fraction	3% < <i>Eb</i> ≤ 6 %	5.26		ASTM C 373		
7. Modulus of rupture in N/mm <sup>2</sup>	Minimum 22	36.55		ISO 10545-4		
8. Breaking strength, lbs	Not less than 250	253.79		<b>ASTM C 648</b>		
9. Resistance to surface abrasion of glazed tiles	Minimum Class2	4:2100 cycle			ISO 10545-7	
10. Crazing Resistance	Resisted	Resisted			ISO 10545-11	
11. DCOF, (DRY/WET)	WET ≥ 0.45	DRY, 0.79 / WET, 0.63		ANSI A137.1		
12. Resistance to staining						
1) Stains leaving a trace (Pastes)	Minimum Class 3	Class 5			ISO 10545-14	
2) Stains having chemical/oxidizing action	Minimum Class 3					
3) Stains forming a film	Minimum Class 3	Class 5				
13. Resistance to chemicals						
a) Resistance to low concentrations of acids , glazed tiles	Minimum Class GLB	GLA GLA GA			ISO 10545-13	
b) Resistance to low concentrations of alkalis, glazed tiles	Minimum Class GLB					
c) Resistance to household chemicals and swimming pool salts, glazed tiles	Minimum class GB					
d) Resistance to swimming pool salts, glazed tiles	Minimum class GB		GA		]	

Reported by: Thunchanit Unjai Approved by : Panu Vadrugchit

Date : 30-Sep-15 Date : 30-Sep-15