



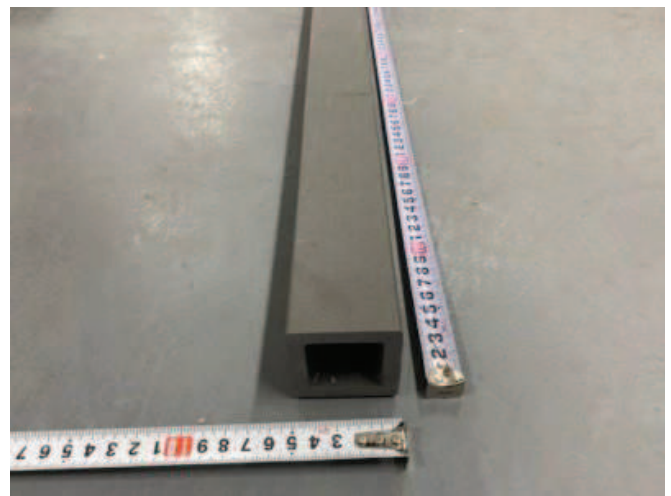
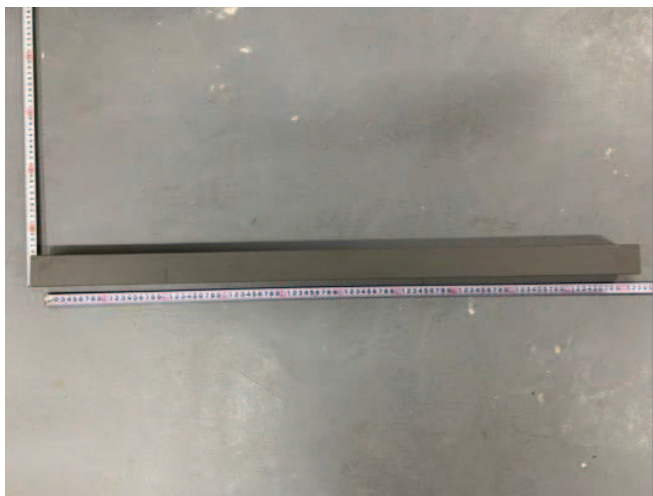
Prüfbericht-Nr.: <i>Test Report No.:</i>	50241745 001	Auftrags-Nr.: <i>Order No.:</i>	168109669	Seite 1 von 6 <i>Page 1 of 6</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	28.03.2019	
Auftraggeber: <i>Client:</i>	Paneltek Ceramics PTE. LTD. 60 Paya Lebar Road, #11-01 Paya Lebar Square 409051 Singapore			
Prüfgegenstand: <i>Test item:</i>	Ceramic Tiles (Terracotta Panels)			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	Type: Terracotta Louver, Color: Grey-01 Size: L1000xW50xT50mm, Serial No.: 50*50			
Auftrags-Inhalt: <i>Order content:</i>	Type examination			
Prüfgrundlage: <i>Test specification:</i>	EN 14411:2012 EN 14411:2016 Ceramic tiles - Definition, classification, characteristic and marking Annex B: Requirements for extruded ceramic tiles of Group All _{a-1} (3.0% < E _b ≤ 6.0%)(Natural)			
Wareneingangsdatum: <i>Date of receipt:</i>	22.02.2019 & 14.06.2019	Detaillierte Fotodokumentation Seite 3 und / oder Anlage zu diesem Bericht Detailed photo documentation page 3 and / or appendix to this report		
Prüfmuster-Nr.: <i>Test sample No.:</i>	1902004 & 1906010			
Prüfzeitraum: <i>Testing period:</i>	07.04.2019 – 08.08.2019			
Ort der Prüfung: <i>Place of testing:</i>	Fuzhou, Xiamen			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd. Xiamen Branch			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:	kontrolliert von / reviewed by:			
19.08.2019 Dora Long / PE 	19.08.2019 Luke Xu / Reviewer 			
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
Sonstiges / Other:	N/A			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Produktbeschreibung
Product description

1	Type	Terracotta Louver
2	Brand	Paneltek
3	Surface finish	Unglazed
4	Color	Grey-01
5	Size	Size: L1000xW50xT50mm
6	Serial No.	50*50



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Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

A)		Dimensions and surface quality		
Length	EN ISO 10545-2	The permissible deviation, of the average size for each tile (2 or 4 sides) from the work size (W): $\pm 2.0\%$ to a maximum of ± 4 mm	+0.0%~+0.1%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
Width			+0.2%~+1.2%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
Length	EN ISO 10545-2	The permissible deviation of the average size for each tile (2 or 4 sides) from the average size of 10 test specimens (20 or 40 sides): $\pm 1.5\%$	-0.0%~+0.1%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
Width			-0.4%~+0.6%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
Thickness	EN ISO 10545-2	The permissible deviation, of the average thickness of each tile from the work size thickness: $\pm 10\%$	+0.4%~+1.2%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
Surface quality	EN ISO 10545-2	A minimum of 95 % of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles	No defects	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B)		Physical properties		
B.1 Water absorption (% by mass)	EN ISO 10545-3	Average: $3.0\% < E_b \leq 6.0\%$, Individual maximum 6.5%	Average: 5.4% Maximum: 5.7%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.2 Breaking strength	EN ISO 10545-4	Thickness ≥ 7.5 mm: Not less than 950 N	35052 N	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.3 Flexural tensile strength or Modulus of rupture	EN ISO 10545-4	Average minimum 20 N/mm ² Individual minimum 18 N/mm ²	Not applicable to ceramic tiles with breaking strength > 3000 N.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
B.4 a) Resistance to deep abrasion of unglazed tiles: removed volume	EN ISO 10545-6	Maximum 393 mm ³	For flooring use only; This product is for wall use.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
B.4 b) Resistance to surface abrasion of glazed tiles intended for use on floors	EN ISO 10545-7	Abrasion class and cycles passed	For glazed tiles use only; This product is unglazed tiles.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>

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B.5 Coefficient of linear thermal expansion – from ambient temperature to 100 °C	EN ISO 10545-8	Declared value	5.9×10 ⁻⁶ /K	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
			6.0×10 ⁻⁶ /K	N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.6 Resistance to thermal shock	EN ISO 10545-9	Pass according to EN ISO 10545-1	Fully resistant	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.7 Craze Resistance: glazed tiles	EN ISO 10545-11	Pass according to EN ISO 10545-1	For glazed tiles use only; This product is unglazed tiles.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
B.8 Frost resistance	EN ISO 10545-12	Declared value	Fully resistant	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.9 Slipperiness	CEN/TS 16165, Annex C	Declared value	For flooring use only; This product is for wall use.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
B.10 Bond strength/adhesion	EN 12004 +A1	Declared value	For wall tiles are fixed by adhesion. This product is fixed by mechanical method.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
B.11 Moisture expansion, in mm/m	EN ISO 10545-10	Declared value	Average: 0.01%	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.12 Small colour differences	EN ISO 10545-16	Glazed tiles: $\Delta E_{cmc} < 0.75$ Unglazed tiles: $\Delta E_{cmc} < 1.0$	0.47	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.13 Impact resistance, as - Coefficient of restitution(COR)	EN ISO 10545-5	Declared value	0.67	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.14 Reaction to fire	-	Class A1 or A1 _{FL}	Class A1	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
B.15 Tactility	CEN/TS 15209	Declare surface description	For tactile paving surfaces only.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
C)	Chemical properties			
C.1 Resistance to staining	EN ISO 10545-14	Glazed tiles: Minimum Class 3	For glazed tiles use only; This product is unglazed tiles.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
		Unglazed tiles: Declared value	Class 4	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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C.2 Resistance to chemicals	Low concentrations of acids and alkalis	EN ISO 10545-13	Declared value	ULA	P <input checked="" type="checkbox"/>	F <input type="checkbox"/>	N/A <input type="checkbox"/>	N/T <input type="checkbox"/>
	High concentrations of acids and alkalis	EN ISO 10545-13	Declared value	For tiles used in potentially corrosive conditions only.	P <input type="checkbox"/>	F <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	N/T <input type="checkbox"/>
	Household chemicals and swimming pool salts	EN ISO 10545-13	Minimum class B	UA	P <input checked="" type="checkbox"/>	F <input type="checkbox"/>	N/A <input type="checkbox"/>	N/T <input type="checkbox"/>
C.3 Release of dangerous substances		EN ISO 10545-15	Declared value	For tiles used in somewhere food may be in direct contact with the glazed tile surface only.	P <input type="checkbox"/>	F <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	N/T <input type="checkbox"/>

END OF TEST REPORT