

Thin Brick Technical Specification

Characteristics	EN 14411:2012	ARTSUM Specification	Test Results	Test Reference
Dimensions and surface quality				
Length	± 1.5% / max:± 2 mm	± 2 mm	Qualified	ISO10545-2
Width	±1.5% / max:± 2 mm	± 2 mm	Qualified	ISO10545-2
Thickness	±10%	± 1 mm	Qualified	ISO10545-2
Flatness	± 1.5% / max:± 2 mm	± 2 mm	Qualified	ISO10545-2
Straightness	±1.5% / max:± 2 mm	± 2 mm	Qualified	ISO10545-2
Rectangularity	±1.5% / max:± 2 mm	± 2 mm	Qualified	ISO10545-2
Surface quality	A minimum of 95% shall be free from visible defects that would impair the appearance of a major area.	A minimum of 95% shall be free from visible defects that would impair the appearance of a major	Qualified	ISO10545-2
Physical properties				
Water absorption	3% ≤ E ≤ 10%	3% ≤ E ≤ 8%	Qualified	ISO10545-3
Density	Declared value	2.05--2.2g/cm ³	Qualified	ISO10545-3
Breaking strength	≥800N	≥1000N (for thickness 11mm)	Qualified	ISO10545-4
Modulus of rupture	Average≥13	Average≥23	Qualified	ISO10545-4
Moisture expansion, in mm/m	Declared value	0.01%	Qualified	ISO10545-10
Frost resistance	Pass according to EN ISO 10545	No visible damages after 100 changes of freezing and thawing	Qualified	ISO10545-12
Impact resistance, Coefficient of restitution (COR)	Declared value	0.59	Qualified	ISO10545-5
Thermal shock resistance	Pass according to EN ISO 10545	Free from defects after 10 cycles	Qualified	ISO10545-9
Coefficient of linear thermal expansion – from ambient temperature to 100 °C	Declared value	5.9x10 ⁻⁶ /K	Qualified	ISO10545-8
Efflorescence	Declared value	Not effloresced	Qualified	ASTM C67-18 Clause 11
Mohs hardness	Declared value	Mohs scale hardness 6	Qualified	EN 15771:2010
Limits of radionuclides	For main materials: IRa≤1.0, Iy≤1.3	IRa=0.5, Iy=1.0 Conformed to the requirement of main materials for building.	Qualified	GB6566-2010
Reaction to fire	Class A1	Class A1	Qualified	ISO10545
Chemical properties				
Resistance to low concentrations of acids and alkalis	Declared value	ULA	Qualified	ISO10545-13
Resistance to Household chemicals and swimming pool salts	Minimum Class B	Class A	Qualified	ISO10545-13

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