

GIA SALT & PEPPER RANGE
300 x 300 X 8 MM
FULL BODY TILE

Test Standard – EN 14411:2016 Ceramic tiles – Definition, classification, characteristics, assessment and verification of constancy of performance and marking Annex G requirements for dry-pressed ceramic tiles with low water absorption of group B I a (Eb≤0.5%)				
Properties	Test Method	Requirements	Results	Verdicts
Dimensions and surface quality				
Length and width The permissible deviation of the average size of each tile (4sides) from the work size	EN ISO 10545-2:2018	±0.6%	-0.02%~0	P
		±2.0	-0.2mm~0	P
Thickness The permissible deviation, of the average thickness of each tile from the work size thickness	EN ISO 10545-2:2018	±5%	-1%~+3%	P
		±0.5mm	-0.1mm~+0.2mm	P
Straightness of sides The maximum deviation from straightness related to the corresponding work sizes	EN ISO 10545-2:2018	±0.5%	-0.04%~+0.03%	P
		±1.5mm	-0.12mm~+0.1mm	P
Rectangularity The maximum deviation from rectangularity related to the corresponding work sizes	EN ISO 10545-2:2018	±0.5%mm	+0.08%~+0.07%	P
		±2.0mm	-0.25mm~+0.22mm	P
Surface flatness: the maximum deviation from flatness				
a) Centre curvature, related to diagonal calculated from the work size	EN ISO 10545-2:2018	±0.5%	-0.4%~-0.03%	P
		±2.0mm	0.4mm~-0.2mm	P
b) Edge curvature, related to the corresponding work sizes;	EN ISO 10545-2:2018	±0.5%	-0.05%~-0.03%	P
		±2.0mm	-0.3mm~-0.2mm	P
c) Warpage, related to diagonal calculated from work size	EN ISO 10545-2:2018	±0.5%	+0.04%~+0.07%	P
		±2.0mm	+0.4mm~+0.6mm	P
Surface quality	EN ISO 10545-2:2018	A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles	100%	P
Physical properties				
Water absorption Percent mass fraction	EN ISO 10545-3:2018	Eb≤0.5%	0.3%	P
		Individual maximum 0.5%	0..2%~0.4%	P
Breaking strength, in N	EN ISO 10545-4:2019	≥1300	1546	P
Modulus of rupture, in N/mm²	EN ISO	Minimum 35	54.0	P

Not applicable to tiles with breaking strength ≥ 1300	10545-4:2019	Individual minimum 32	51.7~55.9	P
Abrasion resistance Resistance to surface abrasion of glazed tiles intended for use on floors	EN ISO 10545-7:1998	Report abrasion class	N/A	----
		Report cycles passed	N/A	----
Thermal shock resistance	EN ISO 10545-9:2013	Pass	Fully resistance	P
Crazing resistance: glazed tiles	EN ISO 10545-11:1996	Pass	Fully resistance	P
Frost resistance	EN ISO 10545-12:1997	Pass	Fully resistance	P
Slipperiness Oil-wet inclining platform test method	DIN 51130:2014	DECLARED VALUE	$a_{ges.}: 10.7^\circ$ corrected mean overall acceptance angle $a_{ges.}: 10.7^\circ$ classification R10	----
Impact resistance: coefficient of restitution (COR)	EN ISO 10545-5:1997	DECLARED VALUE	0.85	----
Chemical properties				
Resistance to staining				
a) Green staining agent in light oil	EN ISO 10545-14:2015	Minimum class 3	Class 5	P
b) Red agent staining in light oil	EN ISO 10545-14:2015	Minimum class 3	Class 5	P
c) 13g/L solution in alcohol	EN ISO 10545-14:2015	Minimum class 3	Class 5	P
d) Olive oil	EN ISO 10545-14:2015	Minimum class 3	Class 5	P
Resistance to chemicals				
Resistance to household chemical and swimming pool salts				
a) Household chemicals: ammonium chloride 100g/L	EN ISO 10545-13:2016	Minimum class B	A	P
b) Swimming pool salts: sodium hypochlorite solution, 20mg/L	EN ISO 10545-13:2016	Minimum class B	A	P
Resistance to low concentrations of acids and alkalis				
a) Hydrochloric acid solution, 3% (v/v)	EN ISO 10545-13:2016	Declared value	LA	----
b) Citric acid solution, 100g/L	EN ISO 10545-13:2016	Declared value	LA	----
c) Potassium hydroxide, 30g/L	EN ISO 10545-13:2016	Declared value	LA	----
Resistance to high concentrations of acids and alkalis				

a) Hydrochloric acid solution, 18% (v/v)	EN ISO 10545-13:2016	Declared value	HA	----
b) Lactic acid, 5% (v/v)	EN ISO 10545-13:2016	Declared value	HA	----
c) Potassium hydroxide, 100g/L	EN ISO 10545-13:2016	Declared value	HA	----
EN 15771:2010 Vitreous and porcelain enamels – determination of surface scratch hardness according to the Mohs scale				
Scratch hardness of surface according to Mohs	EN 15771:2010		6	
AS 4586-2013/Amdt 1- 2017 Slip resistance classification of new pedestrian surface materials				
Slip resistance, wet pendulum test method, slider 96	AS 4586-2013/Amdt 1- 2017 Appendix A		SRV: 37	