

# Technical data sheet

Product: **WARVE699**

Color: **grey**

Nominal size: **20x60 cm**

Declared size: **598x198x10 mm**

Surface: **relief matt**

Serie: **Form Plus**

Norm: **EN 14411:annex L, BIII**

Declaration: **W 13 01**

Group of goods: **wall tile**

Product type: **wall tile**

Technical characteristics	Norm	EN 14411:annex L BIII	LB/RAKO
Tolerance - Length/width	ISO 10545-2	± 0,5%	± 0,4%
Tolerance - Thickness	ISO 10545-2	± 10%	± 5%
Tolerance - Straightness	ISO 10545-2	± 0,3%	± 0,2%
Tolerance - Rectangularity	ISO 10545-2	± 0,5%	± 0,3%
Tolerance - Surface flatness	ISO 10545-2	± 0,5%	± 0,25%
Surface quality	ISO 10545-2	Min. 95%	Min. 95%
Water absorption	ISO 10545-3	E>10%	E>10%
Breaking strength	ISO 10545-4	>= 7,5 mm min. 600 N < 7,5 mm min. 200 N	>=600 N
Modulus of rupture	ISO 10545-4	Min. 12 N/mm <sup>2</sup> Ind.min. 15 N/mm <sup>2</sup>	Min. 12 N/mm <sup>2</sup> Ind.min. 15 N/mm <sup>2</sup>
Coefficient of linear thermal expansion	ISO 10545-8	Declared value	Max. 0,000008 / K
Thermal shock resistance	ISO 10545-9	Required	Resistant
Crazing resistance	ISO 10545-11	Required	Resistant
Freeze-thaw resistance	ISO 10545-12	Declared value	Unsatisfactory
Durability for: internal use	EN 14411	Pass	Pass
Bond strength/adhesion-cem. adhesives	EN 12004:2007+A1:2012	Declared value	>=0,5 N/mm <sup>2</sup>
Bond strength/adhesion-dispers. adhesiv.	EN 12004:2007+A1:2012	Declared value	NPD*
Bond strength/adhesion-rea. resin adhes.	EN 12004:2007+A1:2012	Declared value	NPD*
Bond strength/adhesion-mortar	EN 12004:2007+A1:2012	Declared value	NPD*
Moisture expansion	ISO 10545-10	Declared value	0,6 mm/m
Light reflectance value LRV	ISO 10545-18	Not required	
Impact resistance: Coef. of restit.	ISO 10545-5	Declared value	Min. 0,6
Reaction to fire	no testing 96/603 EHS	Class A1	Class A1
Resistance to staining	ISO 10545-14	Min. 3	Min. 3
Resistance to low conc.of acids/alkalis	ISO 10545-13	Declared value	B
Resistance to high conc.of acids/alkalis	ISO 10545-13	Declared value	B
Resist. to house. chem. and swim. pool	ISO 10545-13	Min. B	A
Release of dang.subs.: Cadmium (GL)	ISO 10545-15	Declared value	NPD*
Release of dang.subs.: Lead (GL)	ISO 10545-15	Declared value	NPD*
Surface hardness according to Mohs	EN 101	Not required	Min. 3
The reference life (RSL)	ISO 14 025/EN 15804	50 years	50 years
Assessment of nat.radionuclide content	CZ Imp.422/2016	Max. index 1,0	Max. index 1,0

\* No Performance Determined – NPD