



TEST CERTIFICATE N° 9466E/20 dated 17 November 2020

Client: Argelith Bodenkeramik H. Bitter GmbH, P.O.B. 1240, D-49145 Bad Essen, GERMANY
 Test specimen: Ceramic clinker tiles group Blb UGL, 198/98/16 mm, brick red, R11 *)

Tested material properties	Requirements accord. to ISO 13006 - annex H, group Blb UGL *)	Test. acc. to DIN EN ISO	Test results
Dimensional tolerance and surface quality Work size 197,3x96x16 mm non-rectified *) Length and width - deviation in % of the average length/width from the work size Thickness Straightness of sides Rectangularity Center curvature Edge curvature Warpage Surface quality	± 0.6 %; ± 2.0 mm ± 5 %; ± 0.5 mm ± 0.5 %; ± 1.5 mm ± 0.5 %; ± 2.0 mm ± 0.5 %; ± 2.0 mm ± 0.5 %; ± 2.0 mm ± 0.5 %; ± 2.0 mm min. 95 % free from visible defects	10545-2	± 0.2 %; ± 0.4 mm ± 2.2 %; ± 0.5 mm ± 0.2 %; ± 0.3 mm ± 0.4 %; ± 0.4 mm ± 0.2 %; ± 0.5 mm ± 0.3 %; ± 0.5 mm ± 0.1 %; ± 0.2 mm fulfilled
Physical properties Water absorption in weight-% Open porosity in cm ³ Apparent relative density in g/cm ³ Bulk density in g/cm ³	0.5 % < Ev ≤ 3 % no requirement no requirement no requirement	10545-3	1.71 ± 0.36 **) 4.35 ± 0.89 **) 2.67 ± 0.02 **) 2.55 ± 0.01 **)
Modulus of rupture in N/mm ² Breaking strength for thickness ≥ 7.5 mm in N	min. 30 N/mm ² min. 1100 N	10545-4	38.9 ± 2.4 **) 5811 ± 378 **)
Resistance against wear (deep abrasion) in mm ³	max. 175 mm ³	10545-6	118 ± 3 **)
Coefficient of linear thermal expansion from ambient to 100°C in 1/K	stated value	10545-8	6.8 x 10 ⁻⁶
Thermal shock resistance	required	10545-9	fulfilled
Frost resistance	required	10545-12	fulfilled
Chemical properties Resistance against household chemicals and swimming pool salts	min. class B	10545-13	fulfilled; class A
Resistance against acids and alkalis of low and high concentration	stated value	10545-13	fulfilled; class LA fulfilled; class HA
Resistance against stains Chromium green Iodine Olive oil	stated value	10545-14	class 2 class 5 class 2

*) Information according to client

**) standard deviation

Remarks:

The Argelith ceramic clinker tiles group Blb, 198/98/16 mm, brick red, R11*) comply in all tested material properties with the requirements of the product standard ISO 13006:2018, annex H, group Blb UGL non-rectified. The test certificate is valid until 17 November 2025.

Klaus Rapp

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