

# Technical data sheet

Product: **WARV4333**  
 Color: **black**  
 Nominal size: **30x60 cm**  
 Declared size: **598x298x10 mm**  
 Edge shaping: **rectified**  
 Surface: **relief matt**

Serie: **Flash**  
 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<br>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<br>< 7,5 mm min. 200 N                | >=600 N                                                    |
| Modulus of rupture                       | ISO 10545-4           | Min. 12 N/mm <sup>2</sup><br>Ind.min. 15 N/mm <sup>2</sup> | Min. 12 N/mm <sup>2</sup><br>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                                             | not resistant                                              |
| 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