



|       |                              |                              |                      |                      |                             |
|-------|------------------------------|------------------------------|----------------------|----------------------|-----------------------------|
| Sizes | 19 1/8" x 43 1/4"<br>± 8.5mm | 15 1/4" x 31 1/2"<br>± 8.5mm | 12" x 36"<br>± 8.5mm | 12" x 22"<br>± 8.5mm | 3 1/8" x 12 3/8"<br>± 8.5mm |
|-------|------------------------------|------------------------------|----------------------|----------------------|-----------------------------|

|                            |  | Technical features  | Test method      | Requisites for nominal size N  |                   |                   | Marvel                            |
|----------------------------|--|---|------------------|--|-------------------|-------------------|-----------------------------------|
|                            |  |   |                  | 7 cm ≤ N < 15 cm   | N ≥ 15 cm         |                   | Shiny rectified                   |
|                            |  |   |                  | (mm)   | (%)               | (mm)              |                                   |
| Regularity features        |  | Length and width  | ISO 10545-2      | ± 0,4 (*) Rect.  | ± 0,3 (*) Rect.   | ± 1,0 (*) Rect.   | Suitable for                      |
|                            |  | Thickness   |                  | ± 0,5 (**)   | ± 10 (**)         | ± 0,5 (**)        | Suitable for                      |
|                            |  | Straightness of sides   |                  | ± 0,4 (***) Rect.  | ± 0,3 (***) Rect. | ± 0,8 (***) Rect. | Suitable for                      |
|                            |  | Perpendicularity  |                  | ± 0,4 (***) Rect.  | ± 0,3 (***) Rect. | ± 1,5 (***) Rect. | Suitable for                      |
|                            |  | Surface flatness  |                  | c.c. ± 0,6 Rect.   | c.c. ± 0,4 Rect.  | c.c. ± 1,8 Rect.  | Suitable for                      |
|                            |  | e.c. ± 0,6 Rect.  | e.c. ± 0,4 Rect. | e.c. ± 1,8 Rect.   |                   |                   |                                   |
|                            |  | w. ± 0,6 Rect.  | w. ± 0,4 Rect.   | w. ± 1,8 Rect.   |                   |                   |                                   |
| Structural features        |  | Water absorption level (in% by mass)                                      | ISO 10545-3      | Average >10%. If this value > 20%, it must be indicated. Single value > 9% |                   |                   | 10% < EV ≤ 20%                    |
| Bulk mechanical features   |  | Breaking strenght   | ISO 10545-4      | S ≥ 600N   |                   |                   | S ≥ 600 N                         |
|                            |  | Bending resistance  |                  | R ≥ 12 N/mm²   |                   |                   | R ≥ 15 N/mm²                      |
| Thermo-igrometric features |  | Coefficient of linear thermal expansion                                   | ISO 10545-8      | Declared value   |                   |                   | ≤ 7MK <sup>-1</sup>               |
|                            |  | Thermal shock resistance  | ISO 10545-9      | Test passed in accordance with ISO 10545-1                                 |                   |                   | Resistant                         |
|                            |  | Moisture expansion (in mm/m)  | ISO 10545-10     | Declared value   |                   |                   | ≤ 0.06% (0.6mm/m)                 |
|                            |  | Crazing resistance: glazed tiles  | ISO 10545-11     | Test passed in accordance with ISO 10545-1                                 |                   |                   | ≤ 0.06% (0.6mm/m)                 |
| Physical properties        |  | Bond strenght   | EN 1348          | Declared value   |                   |                   | ≥ 1.0 N/mm² (Class C2 - EN 12004) |
|                            |  | Reaction to fire  | -                | Class A1   |                   |                   | A1                                |
| Chemical features          |  | Resistance to household chemicals and swimming pool salts                 | ISO 10545-13     | Minimum B class  |                   |                   | A                                 |
|                            |  | Resistance to low concentrations of acids and alkalis                     |                  | Declared class   |                   |                   | LA                                |
|                            |  | Resistance to high concentrations of acids and alkalis                    |                  | Declared class   |                   |                   | HA                                |
|                            |  | Stain resistance of glazed tiles  | ISO 10545-14     | Minimum Class 3  |                   |                   | 5                                 |
|                            |  | Release of dangerous substances: Cadmium (in mg/dm²) and Lead (in mg/dm²) | ISO 10545-15     | Declared value   |                   |                   | ≤ 0.01mg/dm² Cd<br>≤ 0.1mg/dm² Pb |

\* Permitted deviation, in % or mm, from the average size of each tile (2 or 4 sides) with respect to the manufacturing size (W).  
 \*\* Permitted deviation, in % or mm, from the average thickness of each tile with respect to the cited manufacturing thickness (W).  
 \*\*\* Maximum permitted straightness deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).  
 \*\*\*\* Maximum permitted perpendicularity deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).  
 \*\*\*\*\* Maximum permitted centre curvature deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).  
 e.c. Maximum permitted corner curvature deviation, in % or mm, with respect to the corresponding manufacturing sizes (W).  
 w. Maximum permitted bending deviation, in % or mm, with respect to the diagonal calculated according to manufacturing sizes (W).  
 (1) Determining the slip resistance of pedestrian surfaces; not applicable to sports flooring or road traffic flooring.  
 (2) The anti-slip performance is guaranteed at the time of delivering the product.  
 (3) However, tiles with a DCOF of 0.42 or greater are not necessarily suitable for all projects. The specifier shall determine tiles appropriate for specific project conditions, considering by way of example, but not in limitation, type of use, traffic, expected contaminants, expected maintenance, expected wear, and manufacturers' guidelines and recommendations."  
 (4) For further details, please refer to the outdoor design general catalogue.  
 (5) Only for products with 20 mm thickness