# EXENCE

GRES PORCELLANATO
TECHNICAL FEATURES - COMPLIANT WITH STANDARDS EN 14411 (ISO 13006)
ANNEX G GROUP BIa

atlas concorde

| Sizes | 30x120 cm 11¾"x47 ⁄4"<br>20mm | 20x120 cm 7⅞"x47 ⁄4"<br>9mm | 18,5x150 cm 7 ⁄4"x59"<br>9mm |
|---|---|---|---|

| | | Technical features | Test method | Requisites for nominal size N | | | Exence | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 7 cm ≤ N < 15 cm | N ≥ 15 cm | | Matte rectified | Grip rectified | Outdoor rectified |
| | | | | (mm) | (%) | (mm) | | | |
| Regularity features | | Length and width | ISO 10545-2 | ± 0,9 (*) Non-rect.<br>± 0,4 (*) Rect. | ± 0,6 (*) Non-rect.<br>± 0,3 (*) Rect. | ± 2,0 (*) Non-rect.<br>± 1,0 (*) Rect. | Suitable for | Suitable for | Suitable for |
| | | Thickness | | ± 0,5 (**) | ± 5 (**) | ± 0,5 (**) | Suitable for | Suitable for | Suitable for |
| | | Straightness of sides | | ± 0,8 (***) Non-rect.<br>± 0,4 (***) Rect. | ± 0,5 (***) Non-rect.<br>± 0,3 (***) Rect. | ± 1,5 (***) Non-rect.<br>± 0,8 (***) Rect. | Suitable for | Suitable for | Suitable for |
| | | Perpendicularity (Measurement only on short edges when L/l ≥ 3) | | ± 0,8 (***) Non-rect.<br>± 0,4 (***) Rect. | ± 0,5 (***) Non-rect.<br>± 0,3 (***) Rect. | ± 2,0 (***) Non-rect.<br>± 1,5 (***) Rect. | Suitable for | Suitable for | Suitable for |
| | | Surface flatness | | c.c. ± 0,8 Non-rect.<br>c.c. ± 0,6 Rect. | c.c. ± 0,5 Non-rect.<br>c.c. ± 0,4 Rect. | c.c. ± 2,0 Non-rect.<br>c.c. ± 1,8 Rect. | Suitable for | Suitable for | Suitable for |
| | | | | e.c. ± 0,8 Non-rect.<br>e.c. ± 0,6 Rect. | e.c. ± 0,5 Non-rect.<br>e.c. ± 0,4 Rect. | e.c. ± 2,0 Non-rect.<br>e.c. ± 1,8 Rect. | | | |
| | | | | w. ± 0,8 Non-rect.<br>w. ± 0,6 Rect. | w. ± 0,5 Non-rect.<br>w. ± 0,4 Rect. | w. ± 2,0 Non-rect.<br>w. ± 1,8 Rect. | | | |
| Structural features | | Water absorption level (in% by mass) | ISO 10545-3 | E≤ 0,5% Individual Maximum 0,6% | | | ≤0.1% | ≤0.1% | ≤0.1% |
| | | | ASTM C373-18 | Requirement ANSI A137.1-2017 Water Absorption Max < 0,5% | | | ≤0.5% | ≤0.5% | ≤0.5% |
| Bulk mechanical features | | Breaking strenght | ISO 10545-4 | S ≥ 700N (for thickness < 7,5mm)<br>S ≥ 1300N (for thickness ≥ 7,5mm) | | | S ≥1500 N | S ≥1500 N | S ≥10000 N |
| | | Bending resistance | | R ≥ 35 N/mm² | | | R ≥40 N/mm² | R ≥40 N/mm² | R ≥45 N/mm² |
| | | Bending and breaking load resistance (4) (5) | EN 1339 Annex F | - | | | | | ≥T11 60x60 \| ≥U3 30x120 |
| | | Impact resistance | ISO 10545-5 | Declared value | | | ≥0.55 | ≥0.55 | ≥0.55 |
| Surface mechanical features | | Deep abrasion resistance of unglazed tiles | ISO 10545-6 | ≤ 175 mm³ | | | ≤150mm³ | ≤150mm³ | ≤150mm³ |

* 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

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ANNEX G GROUP Bla

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| | | Technical features | Test method | Requisites for nominal size N | | | Exence | | |
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| | | | | 7 cm ≤ N < 15 cm | N ≥ 15 cm | | Matte rectified | Grip rectified | Outdoor rectified |
| | | | | (mm) | (%) | (mm) | | | |
| Thermo-igrometric features | | Coefficient of linear thermal expansion | ISO 10545-8 | Declared value | | | ≤7MK$^{-1}$ | ≤7MK$^{-1}$ | ≤7MK$^{-1}$ |
| | | Thermal shock resistance | ISO 10545-9 | Test passed in accordance with ISO 10545-1 | | | Resistant | Resistant | Resistant |
| | | Moisture expansion (in mm/m) | ISO 10545-10 | Declared value | | | ≤0.01% (0.1mm/m) | ≤0.01% (0.1mm/m) | ≤0.01% (0.1mm/m) |
| | | Frost resistance | ISO 10545-12 | Test passed in accordance with ISO 10545-1 | | | Resistant | Resistant | Resistant |
| Physical properties | | Bond strenght | EN 1348 | Declared value | | | ≥1.0 N/mm² (Class C2 - EN 12004) | ≥1.0 N/mm² (Class C2 - EN 12004) | ≥1.0 N/mm² (Class C2 - EN 12004) |
| | | Reaction to fire | - | Class A1 or A1$_{fl}$ | | | A1 - A1$_{fl}$ | A1 - A1$_{fl}$ | A1 - A1$_{fl}$ |
| Chemical features | | Resistance to household chemicals and swimming pool salts | ISO 10545-13 | Minimum B class | | | A | A | A |
| | | Resistance to low concentrations of acids and alkalis | | Declared class | | | LA | LA | LA |
| | | Resistance to high concentrations of acids and alkalis | | Declared class | | | HA | HA | HA |
| | | Stain resistance | ISO 10545-14 | Declared class | | | 5 | 5 | 5 |
| Safety characteristics (1)(2) | | Booted ramp test | DIN EN 16165 ANNEX B (EX DIN 51130) | Declared class | | | R10 | R11 | R11 |
| | | Barefoot Ramp test | DIN EN 16165 ANNEX A (EX DIN 51097) | Declared value | | | A+B | A+B+C | A+B+C |
| | | Pendulum friction Test | BS EN 16165 ANNEX C (EX BS 7976) | PTV ≥ 36 classifies the surface as "low slip risk" | | | ≥36Dry ≥36Wet | ≥36Dry ≥36Wet | ≥36Dry ≥36Wet |
| | | | AS 4586 | Declared Classification of the new pedestrian surface materials according to the Pendulum Test | | | Class P3 | Class P4 | Class P4 |
| | | | UNE 41901 EX:2017 | Declared value | | | Class C2 | Class C3 | Class C3 |
| | | Coefficient of friction | B.C.R.A. Rep. CEC/81 | Min. Dec. 236/89 of 14/06/89<br>μ >0.40 for a sliding leather element on a dry $_{fl}$oor<br>μ >0.40 for a sliding hard rubber element on a wet $_{fl}$oor | | | >0.40Asciutto >0.40Bagnato | >0.40Asciutto >0.40Bagnato | >0.40Asciutto >0.40Bagnato |
| | | Dynamic coefficent of friction (DCOF) | ANSI A 326.3 | - | | | Wet DCOF ≥ 0.50 | Wet DCOF ≥ 0.55 | Wet DCOF ≥ 0.55 |

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