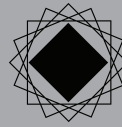


# Giant



**REFIN**  
CERAMICHE



Sap

25mm x 150mm  
10" x 60"

MJ62







Moss      250mm x 1500mm      NB58  
10" x 60"



Sap      250mm x 1500mm      MJ62  
10" x 60"



Ceramiche Refin S.P.A.

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## Technical Features - EN 14411 ISO 13006

|                                                                                     | Regulation                              | Required standards  |                                                 | Refin Value            |
|-------------------------------------------------------------------------------------|-----------------------------------------|---------------------|-------------------------------------------------|------------------------|
|    | Sizes                                   | UNI EN ISO 10545/2  | Not rectified                                   | Rectified              |
|                                                                                     |                                         |                     | ± 0,6 %<br>max 2mm                              | ± 0,3 %<br>max 1mm     |
|                                                                                     |                                         |                     | → Length and width                              |                        |
|                                                                                     |                                         |                     | → Thickness                                     |                        |
|                                                                                     |                                         |                     | → Linearity                                     |                        |
|                                                                                     |                                         |                     | → Wedging                                       |                        |
|                                                                                     |                                         |                     | → Warpage                                       |                        |
|    | Water absorption                        | UNI EN ISO 10545/3  | ≤ 0,5 %                                         | 0,2%                   |
|  | Flexual Strenght                        | UNI EN ISO 10545/4  | ≥ 35 N/mm <sup>2</sup>                          | Conforme Compliant     |
|                                                                                     |                                         |                     | S ≥ 1300 N (thickness ≥ 7,5 mm)                 | Conforme Compliant     |
|  | Coefficient of restitution (COR)        | UNI EN ISO 10545/5  | Recommended value ≥ 0,55/                       | Conforme Compliant     |
|  | Deep abrasion resistance                | UNI EN ISO 10545/6  | ≤ 175 mm <sup>3</sup>                           | Conforme Compliant     |
|  | Coefficient of thermal linear expansion | UNI EN ISO 10545/8  | Tests method available                          | ≤ 7 · MK <sup>-1</sup> |
|  | Thermal shock resistance                | UNI EN ISO 10545/9  | No sample must show visible defects             | Conforme Compliant     |
|  | Moisture expansion                      | UNI EN ISO 10545/10 | Tests method available                          | ≤ 0,01 %<br>(0,1 mm/m) |
|  | Fire resistance                         | UNI EN ISO 13501-1  | Declare a value<br>Class A1 or A <sub>1fl</sub> | A1 <sub>fl</sub>       |
|  | Frost resistance                        | UNI EN ISO 10545/12 | Resistant                                       | Conforme Compliant     |

For oblong tiles with L ≥ 60 cm and ratio length / width L / W ≥ 3, measurement of rectangularity only on short edges

## Technical Features - EN 14411 ISO 13006

|                                                                                                                                           | Regulation                                                       | Required standards                                                               | Refin Value           |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------|
|  <b>Chemical resistance</b>                              | UNI EN ISO 10545/13                                              |                                                                                  |                       |
|                                                                                                                                           | Resistance to household chemicals and swimming pool salts        | Minimum class B (GB for glazed tiles)<br>Minimum class B (UB for unglazed tiles) | Conforme<br>Compliant |
|                                                                                                                                           | Resistance to low concentrations of acids and alkalis            | Declare a class<br>Tests method available                                        | ULA                   |
|                                                                                                                                           | Resistance to high concentrations of acids and alkalis           | Declare a class<br>Tests method available                                        | UHA                   |
|  <b>Flexual Strenght</b>                               | UNI EN ISO 10545/14                                              | UGL Declare a value                                                              | See inside            |
|  <b>Assessment of slip resistance</b>                  | DIN 51130                                                        | Declare a value (R)                                                              | See inside            |
|                                                                                                                                           | DIN 51097                                                        | Declare a value (A+B+C)                                                          | See inside            |
|                                                                                                                                           | BS 7976-2:2002 (CEN/TS 16165, Annex C)<br>Pendulum Friction Test | Declare a value                                                                  | See inside            |
|  <b>Measurement of dynamic coefficient of friction</b> | B.C.R.A. Rep. CEC/81                                             | Asciutto >0.40 / Bagnato > 0.40                                                  | See inside            |
|                                                                                                                                           | ANSI A 137.1-2012(BOT3000)                                       | >0.42 Wet                                                                        | See inside            |