# GIOIA - Technical specifications

ISO 13006 - EN 14411 - ISO 10545 Standards

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|---|---|
| Nominal sizes (cm): **15x61** | Thickness (mm) : **7-11** |
| Sides: **Natural** | Surface: **3D** |
| | Product Group: **BIa-GL** |

| **Technical characteristics** | | **Test method** | **EN 14411 and ISO 13006 requirements** | **Italcer Average values** |
|---|---|---|---|---|
| Dimensions | Length and width | ISO 10545-2 | ±0.6% and ± 2.0mm<br>Rect. : ±0.3% and ± 1.0mm | Compliant |
| | Straightness of sides | ISO 10545-2 | ±0.5% and ± 1.5mm<br>Rect. : ±0.3% and ± 0.8mm | Compliant |
| | Rectangularity | ISO 10545-2 | ±0.5% and ± 2.0mm<br>Rect. : ±0.3% and ± 1.5mm | Compliant |
| | Flatness | ISO 10545-2 | ±0.5% and ± 2.0mm<br>Rect. : ±0.4% and ± 1.8mm | Compliant |
| | Thickness | ISO 10545-2 | ±5% and ± 0.5mm | Compliant |
| Water absorption | | ISO 10545-3 | ≤ 0.5% | <0.1% |
| Modulus of rupture | | ISO 10545-4 | ≥ 35 $N/mm^2$ | >40 $N/mm^2$ |
| Breaking strength (S) | | ISO 10545-4 | ≥ 1300 N | Compliant |
| Abrasion resistance | | ISO 10545-7 | Declared class | / |
| Linear thermal expansion | | ISO 10545-8 | Declared value | $\alpha \leq 7.1x10^{-6}\ °C^{-1}$ |
| Thermal shock resistance | | ISO 10545-9 | No alterations | Resistant |
| Frost resistance | | ISO 10545-12 | No alterations | Resistant |
| Chemical resistance | | ISO 10545-13 | Declared value | LA – HA |
| Household chemicals resistance | | ISO 10545-13 | B min. | A |
| Stain resistance | | ISO 10545-14 | Class 3 min. | 5 |
| Mohs Hardness | | UNI EN 101 | 5 Min. | 6 |
| Shade variation | | ANSI A 137.1 | Not required | V4 |
| Fire reaction | | UNI EN 13501-1 | - | $A1_{FL}$ class |
| Thermal Conductivity | | EN 12524 | Not required | λ = 1.3 W/m·°K |
| Light and colour fastness | | DIN 51094 | Not required | No variations |

Rubiera, May 07 2026

Italcer Quality Department