# SPECIFICATIONS of collection: ULTRA ONICI

English version

Supply of porcelain stoneware Ariostea.

## 1. Product and process features

Porcelain stoneware slabs classifiable as group BIa, frost-proof slabs that resist to chemical attacks, achieved through dry-forming of high-quality mixtures made up of atomized and mixed natural raw materials (kaolin minerals, feldspars). The slabs are made mechanically resistant through a sintering process at very high temperatures.

## 2. Compliance with Standards

The material, in compliance with the requirements of European standards EN 14411 Encl. G and International standards ISO13006 Encl. G, must meet the following technical features:
ISO 10545-3 (Water absorption)
ISO 10545-2 (Dimensions and surface quality)
ISO 10545-4 (Modulus of rupture (R))
ISO 10545-6 (Resistance to deep abrasion)
ISO 10545-8 (Thermal expansion coefficient)
ISO 10545-9 (Thermal shock resistance)
ISO 10545-12 (Frost resistance)
ISO 10545-13 (Chemical resistance)
ISO 10545-14 (Stain resistance)
and it must comply with the DIN 51094 standard (Color resistance to light).
The Quality Control System implemented by the company guarantees the mentioned above features in accordance with UNI-EN-ISO 9001:2015 standards; our company also guarantees the constant respect of the laws in force concerning the health and safety of workers through the ISO 45001 management scheme.
Slabs, with a low environmental impact, obtained by pursuing policies of continuous improvement aimed at reducing the wastes of non-renewable resources by using natural raw materials that are not environmentally valuable.
Objectives achieved through the adoption of Environmental and Energy Management Systems respectively certified in accordance with the UNI-EN ISO 14001:2015 and ISO 50001:2018 standards as well as through the registration to the "ECO-MANAGEMENT" Community system according to the requirements of the EMAS Regulations.
The slabs have been checked and evaluated by an independent third-party Body which certifies their compliance to the LEED_BREEAM, requirements and registered at Environdec, having obtained the Environmental Product Declaration EPD (type III) based on analysis of the product life cycle (s. CRADLE-TO-GRAVE approach – https://www.environdec.com/Detail/epd1439).

## 3. Commercial Description of the Product

| | |
|---|---|
| **Company** | Ariostea |
| **Collection** | ULTRA ONICI |
| **Product** | Onice Bianco Extra - Onice Grigio |
| **Finish** | Soft |
| **Size in inch** | 120x60 - 60x60 - 60x30 - 30x30 - 30x15 |
| **Size in cm** | 300x150 - 150x150 - 150x75 - 75x75 - 75x37,5 |
| **Thickness in mm** | 6 |

**Dimensions**
Materials supplied in Mono-caliber.

| Nominal size in mm | Working size in mm |
|---|---|
| 3000x1500 - 1500x1500 - 1500x750 - 750x750 - 750x375 | 3002x1500 - 1500x1500 - 1500x749 - 749x749 - 749x373,5 |

**4. Technical features**

| Chemical Physical | Norms | Required Standards | Average Values of Production |
|---|---|---|---|
| Water absorption | ISO 10545-3 | ≤ 0,5% | ≤ 0,1% |
| Lenght and Width | ISO 10545-2 | ± 0,6% | ± 0,1% |
| Thickness | | ± 5% | ± 5,0% |
| Linearity | | ± 0,5% | ± 0,1% |
| Rectangularity | | ± 0,5% | ± 0,1% |
| Surface Flatness | | ± 0,5% | ± 0,2% |
| Modulus of rupture (R) | ISO 10545-4 | ≥ 35 N/mm$^2$ | 49 N/mm$^2$ |
| Resistance to deep abrasion | ISO 10545-6 | ≤ 175 mm$^3$ | 140 mm$^3$ |
| Thermal expansion coefficient | ISO 10545-8 | Test method available | 6,5x10$^{-6}$ °C$^{-1}$ |
| Thermal shock resistance | ISO 10545-9 | Test method available | Resistant |
| Frost resistance | ISO 10545-12 | No sample must show significant breakages or alterations | Compliant |
| Chemical resistance*<br>- Household chemicals<br>Swimming pool salts<br>- Low concentration of acid and alkakis<br>- High concentration of acid and alkalis | ISO 10545-13 | - Min. Class B<br>- Manufacturer is to state classification<br>- Test method available | A<br>LA<br>HA |
| Stain resistance | ISO 10545-14 | 1<X≤5 | Class 5 |
| Color resistance to light | DIN 51094 | No sample should show significant color variations | No change in brightness or color |
| Reaction to fire | Decision 96/603 CE Test absent | --- | A1 – A1$_{FL}$ |
| Slip resistance | DIN EN 16165-ANNEX B<br>DIN EN 16165-ANNEX A | Test method available | On request |

(*) With the exception of HYDROFLUORIC acid (HF) or its derivatives and compounds.

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