

INVICTUS

Invictus is whitish in color with fine grayish-black veins, extracted in the municipality of Diamantina, Minas Gerais.

PRODUCTION PROCESS

The Invictus block arrives at CS3 Revestimentos and the process begins with wrapping to reinforce its physical and mechanical resistance for subsequent steps. Next, the blocks are cut into slabs of 2 or 3 centimeters thick using diamond wires. After cutting, the slabs may undergo treatment for oxidation removal and/or prevention, and are then reinforced with a fiberglass mesh glued to their back to provide better material structure.

Subsequently, the slabs undergo the first sealing/waterproofing stage, receiving a water repellent to prevent a wet look on the material surface and avoid stains from the subfloor or mortar after installation. Then, the slabs are resin-treated and polished, and finally receive another layer of water- and oil-repellent sealant, which protects against deep stains. Finally, the slabs are classified, retouched if necessary, and stored in stock.

RECOMMENDED APPLICATIONS



Outdoor areas



Tables



Indoor areas



Artwork



Countertops



Wall panels



Bathrooms



Flooring



Kitchens

FINISHES

According to customer request, Invictus can be offered in different finishes, such as:

- Polished
- Honed
- Satin
- Brushed

TECHNICAL DATA

* Data provided by the material supplier

MINERALOGICAL COMPOSITION *

Quartz	99%
Sericite + feldspar + opaques	1%

PHYSICAL-MECHANICAL CHARACTERISTICS *

Apparent Density	2,67 g/cm ³	-
Apparent Porosity	1,52%	Medium
Water Absorption	0,57%	Medium
Flexural Strength after freeze/thaw	167,99 MPa	-
Uniaxial Compressive Strength	171,57 MPa	High
Flexural Modulus	29,85 MPa	Very High
Flexural Strength	14,01 MPa	High
Impact Resistance (hard body)	0,77 mm	Very High

STAIN AND CHEMICAL RESISTANCE

Stain resistance tests are conducted with 1, 8, and 24-hour contact times between the tested surface and common staining agents.

In tests conducted by the CS3 R&D laboratory and the Mineral Technology Center – CETEM, Invictus showed the following results:

Protection up to 24h of contact against stains from:

- Grape juice
- Cola soft drink
- Citric acid / Lemon
- Pen ink
- Olive oil
- Tomato sauce
- Coffee
- Detergent
- Urine
- Detergent and sponge
- Degreaser
- Disinfectant
- Vinegar
- Wine
- Chlorine
- Bleach
- Water
- Sardine oil

Chemical resistance tests were performed with the following agents, commonly found in specialty or post-construction cleaning products:

- Ammonium Chloride 100 g/L (NH₄Cl)
- Sodium Hypochlorite 20 mg/L (NaClO)
- Lactic Acid 5% v/v (C₃H₆O₃)
- Acetic Acid 3% v/v (CH₃COOH)
- Water

- Hydrochloric Acid 3% v/v (HCl)

Results showed that the material surface, after 24h of contact, did not undergo any alteration with the tested chemical agents. Non-listed chemical agents may cause color changes, dissolution, or mineral detachment on the material surface.

To preserve the beauty and durability of Invictus quartzite, we recommend using specific products for quartzite surfaces and/or neutral soaps for both post-construction and daily cleaning.

USAGE GUIDELINES

Storage

- Protect slabs from the elements by storing them in dry, clean places in a vertical position.
- Avoid contact with products like paints, oils, pigments, wood, urine, cigarettes, glazing putty, and other agents that may cause stains.

Cutting

- Perform wet cutting to prevent the spread of fine dust.
- After cutting, dry and clean the material thoroughly before applying the surface sealant.
- Use high-quality water- and oil-repellent products to seal all cut surfaces, including sink edges, waste openings, drains, faucets, backsplashes, and Italian-style recesses. Refer to our Technical Guide for recommended products.

Maintenance and Protection

- Also waterproof the backside of the piece in areas with possible rising damp.
- Reapply the water- and oil-repellent sealant periodically on both the surface and all cut edges, depending on usage frequency (e.g., semiannually, annually, or as needed).

Installation

- Use high-quality, flexible adhesives and grouts.
- Use metal support clips and good-quality polyurethane adhesives for attaching sinks and countertop.
- Respect thermal expansion joints when grouting and fixing coverings, especially in outdoor areas exposed to sunlight or large temperature variations.

Cleaning

- Use cleaning products suitable for quartzites and avoid abrasive materials such as hard bristle brushes or steel wool.
- Use neutral detergents and soft cloth mops dampened with water.
- Quickly clean any contact with staining agents like cooking oil, wine, and sauces using neutral detergent, water, and a super soft sponge.
- For tougher stains, use specific stain removers recommended for quartzites.

Additional Care

- Avoid contact with abrasive agents or chemicals such as bleach, chlorine, acids, and scouring powder.
- Avoid contact with sharp or abrasive objects like knives or stiff brushes, as they can scratch surfaces, especially polished finishes.
- Do not expose quartzites to direct fire and use trivets to avoid contact with hot objects like pans.
- Do not expose quartzite to hot oil.
- Avoid placing excessive weight on countertops or dropping heavy objects to prevent breakage.

For more information, refer to our Quartzite Technical Guide or contact the CS3 technical team.