

GRANITE

TECHNICAL GUIDE

CS3[®] | SURFACES





GUIDELINES FOR THE USE OF GRANITES AND OTHER SILICATE ROCKS IN COATINGS

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SUMMARY

CS3 Surfaces carries a history of planned and continuous growth. Since 2006, it has been innovating far beyond Natural Stones, the company's flagship product. Facilitating the import of synthetic materials such as quartz from the Colorato Stone Line and bringing cutting-edge technology to the ultracompact surfaces of the Nilam Line. Now present in several countries, it moves trucks across the entire Brazilian road network. Innovation, technology, and quality reach wherever you need. A partner company with a team that works to make your daily life easier.

CS3 Revestimentos, where all inspiration comes to life.

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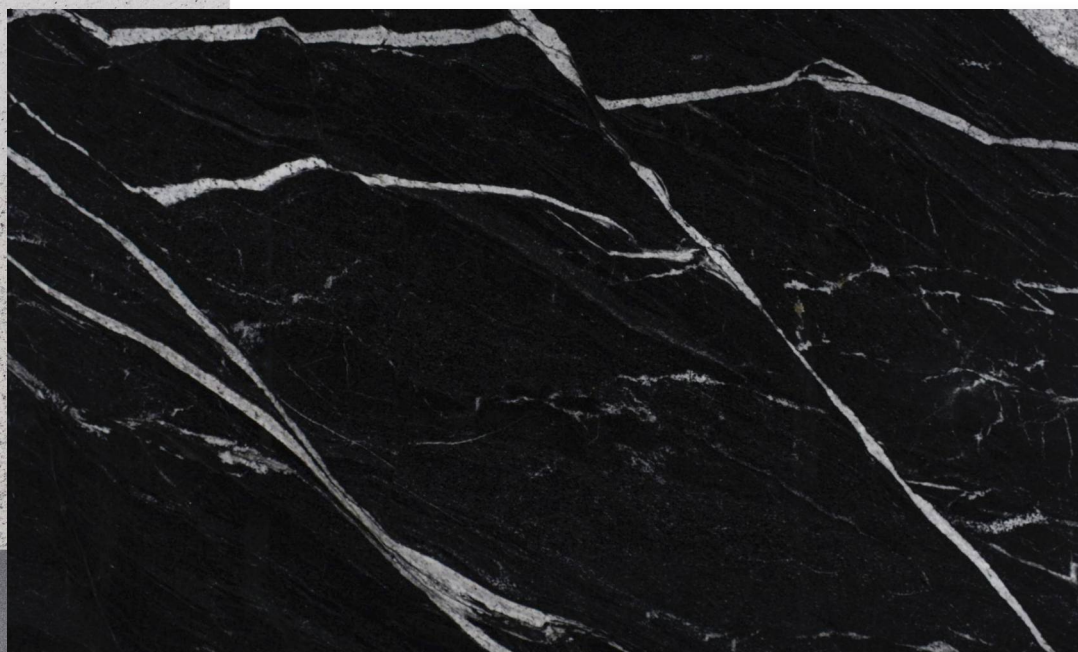
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GUIDELINES FOR
THE USE OF
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COATINGS

CS3 QUALITY STANDARD

The natural stone materials sold by CS3 Revestimentos undergo a rigorous beneficiation process, aiming to ensure maximum quality for customers. This process begins at the quarry, where the extracted blocks are selected and individually identified by a specialized technician.

The cutting of silicate rocks (granites and others) is carried out using modern multi-wire diamond saws, in 2 cm, 3 cm, or greater thicknesses, as requested by the customers. Polishing is performed using automatic multi-head polishers, with the application of epoxy-based resins capable of preventing yellowing from UV rays in outdoor environments. Other protective products, including sealants, mesh, and antioxidants, are additionally applied to the slabs to optimize their performance in coatings.

The slabs thus produced are evaluated and touched up when necessary, then proceed to storage. CS3 provides continuous training for polishers, classifiers, quality

inspectors, and stock clerks, ensuring the products' compliance with the technical and commercial requirements demanded by the consumer market.

Regarding environmental sustainability, it is noteworthy that all the water used by CS3 is monitored and treated for industrial reuse. In addition, all energy comes from renewable sources.

CS3's Research and Development Laboratory monitors the entire process of slab production, conducting tests and analyses to ensure their quality. This laboratory also performs technological suitability tests for mortars and new products for bonding, grouting, waterproofing maintenance, and cleaning of the rocks marketed by the company. The aim is to provide adequate after-sales support, with guidance and customized solutions for customers, fostering a partnership relationship with the end consumers.



WHAT ARE ORNAMENTAL AND COATING STONES?

Ornamental and cladding stones include natural geological materials that can be extracted in blocks, sawn or split into slabs, and cut into various shapes, undergoing processes for finishing faces and edges. Their main field of application includes interior and exterior cladding of buildings, as well as isolated pieces such as sculptures, tabletops, sinks, countertops, decorative objects, funerary art, urban furniture, and landscaping.

The geological processes responsible for the evolution of the Earth's crust create

unique aesthetic characteristics for each type of rock. These processes combine dozens of chemical elements, hundreds of minerals, and countless associated textural and chromatic patterns.

It is noteworthy that most of the Brazilian granites, quartzites, and marbles were formed over 500 million years ago and some over 2 billion years ago. In addition to any technical argument, this geochronological reference illustrates the expected durability of the various stones used as ornamental and cladding materials.



WHAT ARE SILICATE ROCKS?

Silicate rocks are formed by varying proportions of silicate and siliceous minerals (feldspars, quartz, micas, amphiboles, etc.). In the ornamental and coating stone sector, the term granite is used to identify a broad set of granular and compact silicate rocks, with or without oriented structures, and very varied textures. This group includes charnockites

(dark green granites), gabbros (black granites), syenites (blue, brown, and other colored granites), gneisses (oriented/folded structures), as well as true granites in the geological sense (gray, pink, red, whitish, yellowish, beige, etc.).

TECHNOLOGICAL CHARACTERISTICS

Due to their mineralogical composition, these "granites" are generally more resistant than marbles but less resistant than quartzites to abrasive wear and chemical attacks. The desirable technological characteristics for silicate rocks commercially known as granites are presented below, helping in the indication of recommended uses, installation methods, and any neces-

sary adjustments for different application environments in coatings. The reference technological tests, listed below, are defined by the ABNT NBR 15845:2015 (Parts 2 to 8) and 12042:2012 (Amsler test) standards. ABNT provides normative requirements only for coating stones characterized as granite (ABNT NBR 15844:2015).

GRANITES - TECHNOLOGICAL TESTS	ACCEPTABLE VALUES*	NORMATIVE REQUIREMENTS ABNT NBR 15844:2015
Water Absorption	<1,0%	≤0,4%
Apparent Density	>2.500 kg/m ³	>2.550 kg/m ³
Apparent Porosity	<3,0%	<1,0%
Linear Thermal Expansion Coefficient	<10 mm/m °C x 10 ⁻³	<8,0 mm/m °C x 10 ⁻³
Flexural Strength (Three-Point Bending)	>10 MPa	>10 MPa
Flexural Strength (Four-Point Bending)	>7,5 MPa	>8,0 MPa
Uniaxial Compressive Strength	>70 MPa	>100 MPa
Abrasion Resistance (Amsler Test)	<3,0 mm/1.000 m	<1,0 mm/1.000 m
Hard Body Impact	>0,3 m	>0,3 m

(*) Source: Rodrigues and Chiodi Filho, 2020.

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.

APPLICATION OF PROTECTIVE PRODUCTS



The great "geodiversity" of Brazilian ornamental stones, both silicate, siliceous, and carbonate, has required constant optimization of block-cutting and slab beneficiation technologies. In this regard, CS3's industrial processing has incorporated the use of mesh, antioxidants, sealants, and polishing resins suitable for each type of stone. The protocols adopted are particularly strict concerning the meshing of exotic materials for structural reinforcement of the slabs, as well as the sealing and anti-oxidation treatment of white or whitish stones to prevent staining.

SEALANTS AND WATERPROOFING AGENTS

Sealants and waterproofing agents are products designed to prevent or hinder the absorption of liquids and chemical attacks on cladding in general. Sealants are impregnators, prepared in water or solvent base, that act as water- and/or oil-repellent and, theoretically, should not alter the texture or aesthetic appearance of the treated surface. Waterproofing agents are film-forming, translucent or not, applied as a varnish or layer on a surface.

The term 'sealant' should be reserved for products that impregnate/penetrate the stone; 'waterproofing agents' refer to film-forming products that do not penetrate.

Even on surfaces not treated with sealants or waterproofing agents, the action of chemically aggressive or staining products upon contact with the stone surface is rarely immediate. Therefore, the quick removal of these substances prevents the occurrence of damage. On the other hand, prolonged contact of the stone with these products can cause staining, even on surfaces treated with sealants or waterproofing agents.

The edges of necessary cutouts in the stone, such as for sink openings, drains, and faucets, as well as Italian edge profiles, baseboards, and backsplashes, also require the application of sealants. This application should only be carried out after thoroughly cleaning and drying these newly cut edges using vacuum cleaners and thermal blowers.

In environments with the possibility of rising moisture, especially on ground floors, it is important to waterproof the back side of the cladding pieces. There are specific film-forming products for this purpose, taking into account the need to remove any existing mesh if necessary.

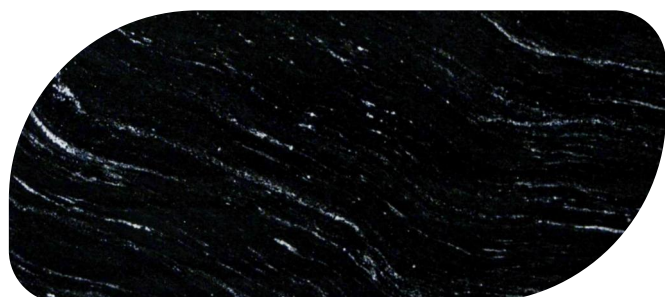
The application method for face and edge sealants and back-side waterproofing agents should follow the instructions provided by the manufacturers on the product packaging. According to the manufacturers' recommendations, preventive maintenance should be periodically reapplied.

SILICATE ROCKS - RECOMMENDED PROTECTIVE PRODUCTS

Type	Products	Manufacturer
Water and Oil-Repellent Sealants	Stain Repellent Nano Effect	Akemi Brasil
	PSC Blocker	Pisoclean
	Shield Nano	Chemistone
	Proseal Nano	Tenax
	Nero Block*	Quimistone/Quimicer
Backside Waterproofing Agents	Sikatop 107	Sika
	Tecplus Top Waterproofing Agent	Quartzolit
	Vedakoll	Akemi Brasil
	Impermaxima	Quartzobrás

*Tested by the R&D laboratory, water-repellent only.

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.



STAIN RESISTANCE

Granite is a popular natural stone, but its resistance to staining can vary depending on the specific type and the porosity of the surface. Although it is less porous than marble, it can still absorb liquids, especially oily or acidic substances. To maintain the durability

and appearance of granite, the application of sealers that help protect against stains is strongly recommended. Regular maintenance and immediate cleaning of spills are essential to preserve its surface and prevent long-term damage.

To learn more about the specific stain resistance of each material, please request the technical data sheet from the CS3 Surfaces team.

FIXING MORTARS

For fixing granite and silicate rock tiles on floors and walls in general, adhesive mortars are preferred, and adhesive mortars that are always flexible are recommended for external environments exposed to sunlight. Both adhesive and bonding mortars have two adhesion components: mechanical and chemical. In bonding mortars, the primary adhesion is mechanical, while in adhesive mortars, it is chemical. Bonding mortars thus perform better on porous surfaces, while adhesive mortars work on both porous and non-porous surfaces.

Conventional floor coverings (non-raised) can be applied over a cement mortar screed or a properly cured concrete base. The surface of the base or screed must be firm, dry, and clean, free of dust, dirt, grease/oil, and other residues that could impair the adhesion of the setting mortars. This surface must not show any deviations from plumb and level, which should be corrected, if necessary, with a leveling layer of cement (CP II-E-32) and sand (washed and sifted) in a 1:3 or 1:4 volume ratio (type "farofa").

Conventional vertical coatings (non-ventilated) can be installed over three types of bases or plasters: mortar, masonry (hollow

blocks), or concrete, all of which must be properly cured and cleaned, without deviations from plumb and level. For coatings positioned up to 3 meters in height, the stone slabs can be fixed using only AC II, AC III, or adhesive bonding mortars; for heights between 3 and 15 meters, it is recommended to reinforce with stainless steel wire anchors to the bonding mortar (AC III, AC III E, or adhesive); for heights above 15 meters, fixation using metal inserts in ventilated facades is recommended.

The bonding mortar should be applied in a double layer, creating cords with a notched trowel of 8 mm x 8 mm. The cords on the backside should be perpendicular to those on the base, positioning the slabs slightly shifted and dragging them into their final position to break the mortar fillets. Place the slabs by pressing them and tapping with a rubber hammer until the mortar thickness is less than 8 mm. The backside should be completely covered with bonding mortar. Use plastic or styrene spacers between the slabs to ensure the consistency of the joints. Clean the floor or wall surface with a slightly dampened sponge and a dry cloth (do not wash or soak).



SILICATE ROCKS - RECOMMENDED FIXING MORTARS

Environment	Product	Manufacturer
Indoor floors	Adhesive 250 ACIII	Quartzobrás
	Votomassa ACIII Flexible	Votorantim
	Cimentcola Flexible	Quartzolit
	TK Plus Mortar	Akemi Brasil
	Glass Mortar (adhesive)	Akemi Brasil
Outdoor floors	Adhesive 500 Ultraflexible	Quartzobrás
	Votomassa ACIII Flexible	Votorantim
	Superformatos Mortar	Quartzolit
	TK Premium Mortar	Akemi Brasil
	Glass Mortar (Adhesive)	Akemi Brasil
Indoor Walls	Adhesive 500 ultra-flexible	Quartzobrás
	Votomassa ACIII Flexible	Votorantim
	Cimentcola Flexible	Quartzolit
	TK Premium Mortar	Akemi Brasil
	Glass Mortar (Adhesive)	Akemi Brasil
Outdoor Walls	Premium Mortar	Quartzolit
	Adhesive 250 ACIII	Quartzobrás
	Votomassa ACIII Flexible	Votorantim
	TK Premium Mortar	Akemi Brasil
	Glass Mortar (Adhesive)	Akemi Brasil

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition.
Follow the usage instructions according to the product supplier.

For the installation, both in vertical and horizontal coverings, in internal and external environments, it is recommended to use light-colored adhesives to prevent the darkening of the surfaces.

GROUTING MORTARS

For grouting, acrylic or epoxy mortars are preferred, and silicone or polyurethane mortars are applicable in more restricted areas. These mortars are suitable for environments where high impermeability is required in the joints, such as in areas with frequent exposure to moisture.

Epoxy grout in light colors may be yellow due to sunlight exposure and should not be used in environments with temperatures below -10°C or above 72°C.

The excess grout is removed with a plastic spatula. A better finish is achieved with a clean sponge dampened with water. These steps should be completed within 30 minutes after grouting.



SILICATE ROCKS - RECOMMENDED GROUTING MORTARS		
Environment	Product	Manufacturer
Indoor and outdoor floor	Acrylic Grout	Fortaleza
	TK Premium Grout	Akemi Brasil
	Polymeric Grout	Quartzobrás
	Porcelain and Ceramic Grout	Quartzolit
Indoor walls	Polymeric Grout	Quartzobrás
	TK Plus Grout	Akemi Brasil
	Acrylic Grout	Quartzolit
	Acrylic Grout	Fortaleza
Outdoor walls	Polymeric Grout	Quartzobrás
	Acrylic Grout	Fortaleza
	TK Premium Grout	Akemi Brasil
	Pool Grout	Quartzolit

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.

ADHESION OF SINKS AND COUNTERTOPS



Sinks made of steel or porcelain can be glued to rock surfaces using polyurethane adhesives. In addition to the adhesive, it is recommended to apply reinforcement with metal clamps, mechanically fixed at the ends

of the sinks, on the underside of sinks, washbasins, and countertops. For gluing rock pieces to wood, brick, masonry, and metal surfaces, adhesives with high elasticity and strong bonding capacity should be used.

PRODUCTS FOR BONDING SINKS AND COUNTERTOPS	
Parts	Recommended Products
Steel or porcelain sinks applied on rocks.	Sink Colar (Colar), metal clamps (Metalúrgica Dorvo)
Stone countertops bonded to wood, brick, masonry, metal.	CA 3400 (Hilt)

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.

CUTTING, DRILLING, AND EDGE FINISHING



Cutting, drilling, or edge finishing of granite pieces and other silicate rocks, using diamond tools, in any work environment, should be performed with equipment that operates wet, or, exceptionally, with the use of respiratory masks resistant to inhalable particles for workers. This guideline applies to any solid covering material, whether natural

or artificial, in order to prevent the dispersion of inhalable dust and the risk of pneumoconiosis. New edges, such as those for faucet holes, sink openings, Italian recesses, baseboards, and skirting boards, should be thoroughly cleaned and dried using vacuum cleaners and heat blowers before the application of water- and oil-repellent sealants.

TRANSPORT AND PROTECTION OF CLADDING PIECES ON SITE

During storage, slabs and finished pieces must be kept in a vertical position and protected from weather conditions (rain, wind, sun, humidity, etc.) in dry and clean locations.

During transportation to the construction site, the cladding pieces must be wrapped in clear plastic tarps and packed in light-colored, inert wooden crates. Once on-site, these pieces should be stored in a dry and clean environment and kept in a vertical position. Larger pieces should be supported on inert wooden racks and wrapped with water-proof materials (plastic, rubber, expanded polypropylene, etc.).

During construction, it is important to avoid contact between cladding pieces and moisture, rusted materials (nails, metal rods, steel wool, cans, batteries, filings, etc.), wood (sawdust, formwork, trestles), cigarettes, grease, oils, paint, pigments,

and other staining products, especially glazier's putty and urine.

After installation and the complete drying of the grout mortars on floors and walls, the surfaces should be cleaned and protected. For floors, flexible non-slip mats are used in areas with low to moderate pedestrian traffic. In high-traffic areas, including those exposed to machinery and equipment, light-colored, inert wooden boards or recyclable material boards can be applied over the underlying protective layer. Alternatively, these areas can be protected solely with modular panels made of recyclable rubber.

To protect countertops, worktops, sinks, and washbasins after installation and during construction, clear plastic tarps should be used, either adhered with water-soluble products or non-adhesive.

SILICATE ROCKS - RECOMMENDED PROTECTIVE PRODUCTS AFTER INSTALLATION

Type	Product	Manufacturer
Floors subject to light traffic	Floor Protector – Extra Resistant	Salvabras
	Pramanta	Pradoflex
	TK Manta	Akemi Brasil
	SOS Piso	Styropplast
Floors subject to heavy traffic	Slabs	Ecoway
	Praplaca	Pradoflex
	Rubber slabs	Protege Piso
Countertops, sinks, washbasins, and others	Adhesive Protector	Salvabras
	Prabancada	Pradoflex
	Pill-Off	Akemi Brasil

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.

AVOIDING NON-CONFORMITIES AND PATHOLOGIES

Non-conformities refer to aesthetic, physical-mechanical, and dimensional issues present before the application of rocks in cladding. They are related to the presence of cracks, stains, veins ("veins"), nodules ("mules"), oxidizable metallic minerals (especially sulfides, such as pyrite), as well as deviations in flatness, variations in thickness, and warping of the slabs, etc., which may compromise the aesthetic characteristics of the rock and the structural performance of the slabs.

Pathologies are physical and aesthetic occurrences that manifest in the rocks after their application. Pathologies can result from the selection of a rock with technological characteristics unsuitable for the demands of a specific environment, or from the use of inappropriate materials for installation and protection, such as mortars, grout, sealants, waterproofing agents, cleaning products, etc. Pathologies are usually caused by external factors and are almost always subject to restoration and correction.

Some of the most common cases of pathologies, when the proper recommendations are not followed, are presented below.

Efflorescences can occur on granite surfaces when rising moisture transports salts from the substrate and/or from the mortar used for the installation of floors and walls. When these salts crystallize in microcracks beneath the surface, they form efflorescences and cause an expansion that can lead to peeling. Prevention of such occurrences is achieved by using adhesive mortars for installation (type AC III) and impermeable grouts (acrylic or epoxy), in addition to a semi-flexible waterproofing product on the back of the stone cladding pieces.

Displacements and ruptures due to imbrication are associated with the heating of floors and facades exposed to sunlight, especially when cladded with dark stones and non-reflective surfaces. The recommended prevention involves using high flexibility and adhesion adhesives, capable of withstanding high temperatures, as well as ensuring the proper spacing of joints and the expected flexibility of the grout, taking into account the thermal expansion coefficient of the stones and the proper sizing of their pieces.

Staining associated with the infiltration of liquids and staining substances on the surface of cladding, especially on lighter stones, can be prevented by applying water- and oil-repellent sealants. Even when treated with these sealants, prolonged contact of these surfaces with staining products should be avoided, and cleaning should be carried out as soon as possible. When the source of the stain is known, surface infiltration stains can be removed with specific stain removers for various types of stains (rust, oil, wood, oxidizable metals, epoxy resin, urine, colored drinks, fungi, algae, etc.), or with broad-spectrum removers for stains of unknown origin.

Note: It is recommended to consult the stain remover catalogs manufactured by companies such as Pisoclean, Akemi Brasil, Piache, and Bellinzoni.

In environments subject to rising moisture, face sealants can only be applied after waterproofing the back of the cladding pieces.

Finally, it is advised against using rocks with lower abrasion resistance for flooring in public and commercial areas, but only in social environments, in order to preserve the surfaces from loss of shine and noticeable wear.

CLEANING AND MAINTENANCE

The maintenance of natural stone cladding requires systematic cleaning work to prevent dirt impregnation, loss of shine (in the case of polished surfaces), and other aesthetic changes. Cleaning should be performed as regularly as possible, using a cloth mop dampened with water or, if necessary, with a slight dilution of neutral pH detergents or pure soaps.

The application of surface protective products, such as water- and oil-repellent sealants, should be done periodically, depending on the frequency of use of the protected surface. Preventive maintenance can be carried out semi-annually, annually, or as needed.

It is essential to avoid excess water, as well as abrasive products (such as sapolio) or chemically aggressive substances (acids, caustic soda, alcohol, kerosene, acetone, removers, and solvents). Just as on the cons-

truction site, cladding should be kept away from oils, greases, paints, and oxidizable rust-prone materials (nails, steel wool, metal brushes, containers, supports, and furniture pieces made of iron, etc.), as well as dust, wood fragments, and other decomposable and pigmenting materials.

Any potentially staining substance spilled on the cladding should be cleaned as quickly as possible. It should be noted that there are currently no sealants that are 100% effective against hot oil infiltration.

Coatings also require protection against abrasive wear and scratching from metals, glass, and other materials with high hardness. Even for silicate rocks, which generally have high abrasive resistance, cleaning should not be done with rigid-bristled brushes, steel wool, or similar items, as these tools can damage polished surfaces.

SILICATE ROCKS - RECOMMENDED PROTECTIVE PRODUCTS POST-INSTALLATION

Type	Product	Manufacturer
Daily Cleaning	Limpeza Diária	Pisoclean
	Crystal Clean	Akemi Brasil
Heavy Cleaning	Limpador Pós-Obra Geral	Quartzolit
	Limpeza Pesada LP	Pisoclean
	Basic Cleaner	Akemi Brasil
	Super Clean Extra Strong	Quartzobrás
Stain Remover	Various Products	Pisoclean
		Akemi Brasil

*Products recommended by the ABIROCHAS Application Guide for Coatings 2nd Edition. Follow the usage instructions according to the product supplier.

WARRANTY CERTIFICATE



CS3 Surfaces, committed to the quality and durability of its products, grants the direct purchaser a 10-year (ten) Warranty Certificate against manufacturing defects, starting from the date of purchase. This warranty is in addition to the legal warranty provided by the Consumer Protection Code (Law No. 8.078/1990).

For the Warranty Certificate to be valid, the fiscal proof of purchase must be presented to the supplier. The fiscal proof must indicate the date of sale and the product specifications.

1. TERMS AND CONDITIONS

This Warranty Certificate applies exclusively to products marketed by CS3 Surfaces. During the warranty period, CS3 Surfaces undertakes to repair any product(s) presenting manufacturing defects or, if repair is not possible, to replace them with another(s) of equivalent or similar characteristics to the originally purchased product(s). The coverage of this Warranty Certificate is strictly conditioned upon the strict observance of the usage and maintenance instructions contained in the Technical Data Sheets and Technical Guides of each product, available through our official channels.

2. COVERAGE RESTRICTIONS FOR DIRECT BUYERS

This Warranty Certificate is valid only for the direct purchaser from CS3 Surfaces, identified in the invoices issued by the company. Claims for defects made by third parties will not be covered by the warranty. CS3 Surfaces reserves the right to update the Technical Data Sheets and Technical Guides of the product, as well as the Terms and Conditions of this Warranty Certificate, at any time, notifying customers via notifications on our official website or email

registered at the time of purchase. Continuing to use the products after such notification implies acceptance of the new terms.

3. LIMITATION OF LIABILITY

This Warranty Certificate is limited exclusively to the purchased product, not covering repairs for damages to third parties, other goods, or installations. Installation and reinstallation expenses for defective products are the responsibility of the buyer, including any additional repair costs such as plumbing, electrical, or masonry work. The removal of products covered by the warranty will be carried out at the CS3 Surfaces headquarters. This Warranty Certificate does not cover transportation, freight, or insurance costs, which must be arranged and paid by the Buyer. CS3 Surfaces is not liable for any financial losses, interruptions in business, industrial, professional, or residential activities, or any damages that may occur until the claim is definitively resolved. The warranty will be considered void if repairs or alterations are made to the defective product without prior formal authorization from CS3 Surfaces.

4. PROCEDURE FOR CLAIMING THE WARRANTY

If your product shows potential manufacturing defects, contact us at (28) 3542-8200, WhatsApp (28) 99947-1886, or email sac@cs3revestimentos.com. Provide a detailed description of the problem, attaching images, videos, and the purchase invoice. After initial analysis, the technical team may request an inspection of the product or additional information to verify the defect and the conditions outlined in this document. The Buyer's cooperation by providing images, videos, or any type of information or evidence requested by the technical team is essential for triggering this Warranty Certificate. If the manufacturing defect is confirmed, CS3 Surfaces will arrange for the repair or replacement as per the terms established.

5. PRODUCT REPLACEMENT

This Warranty Certificate exclusively covers the repair of the product presenting a manufacturing defect or its replacement with another product of equivalent characteristics, such as color, tone, and dimensions to the one originally purchased by the buyer. If CS3 Surfaces does not have a product with these equivalent characteristics in stock, the product will be replaced with one of similar characteristics to the one purchased by the buyer. The 10-year period applies exclusively to products identified with manufacturing defects that compromise the structural integrity, functionality, or durability of the product. The repair or replacement of the product does not suspend, interrupt, or extend the original warranty period.

6. WARRANTY EXCLUSIONS

The following are expressly excluded from this Warranty Certificate:

6.1 - Actions by Third Parties:

Any damage caused directly or indirectly by actions, services, or interventions carried out by third parties not associated with CS3 Surfaces, including, but not limited to, defects or issues resulting from improper installation methods, finishes, cuts, or any other modifications, adaptations, manipulations, or interventions in the product that do not follow the instructions explicitly contained in the technical data sheets or guides provided by CS3 Surfaces.

6.2 - Misuse or Improper Use:

Damage resulting from using the products for non-recommended purposes or improper handling of the product, contrary to the recommendations in the Technical Data Sheet or Technical Guide of the product, including, but not limited to, using the product for purposes other than those for which it was designed, exposure to extreme conditions, such as high temperatures that are not compatible with the material's characteristics, spilling hot oil, direct and prolonged contact of the material surface with aggressive or potentially staining chemicals that may damage or alter the appearance of the product.

6.3 - Damage from Transport, Handling, and Storage:

Damage occurring during the transportation or handling of the product, including those resulting from transshipment, relocation, loading, and unloading of the material, as well as damage caused by improper storage or handling at the Buyer's receiving location.

6.4 - Fortuitous Events and Force Majeure:

Damage resulting from unforeseen circumstances and/or force majeure, such as natural disasters or unpredictable events.



6.5 - Chemical Products:

Damage resulting from the use of inappropriate chemical products, such as polishing agents, waxes, acids, adhesives, sealants, and waterproofing agents applied contrary to the guidelines specified by the manufacturer and recommendations in the Technical Data Sheet or Technical Guide. Improper application of these products may cause permanent modifications in texture, color, shine, or surface finish, irreversibly compromising the aesthetic and functional integrity of the product.

6.6 - Structural Problems:

Damage caused by external factors to the product, such as structural, electrical, or hydraulic failures.

6.7 - Lack of Maintenance or Improper Cleaning:

Deterioration resulting from the lack of preventive maintenance or improper cleaning practices, contrary to the instructions in the Technical Data Sheet and the Technical Guide of the product, especially those regarding the use of abrasive products (such as scouring powders), chemically aggressive products (acids, caustic soda, alcohol, kerosene, acetone, removers, and solvents), or any substance that may damage the surface of the material.

6.8 - Damage from Impact or External Factors:

This Warranty Certificate does not cover chips, cracks, scratches, or any damage caused by impacts, blows, friction, object drops, or excessive weight applied to the material. These damages are not considered manufacturing defects and are therefore excluded from the warranty coverage.

6.9 - Natural Wear:

Damage or alterations resulting from the natural wear of the product, including loss of shine, scratches, superficial stains, and other modifications resulting from regular, intensive, or prolonged use of the product. These changes are considered part of the normal, gradual aging of the material over time and do not represent manufacturing defects.

6.10 - Aesthetic Variations:

The warranty does not cover aesthetic variations, including differences in tone, veins, grain, and any other visual characteristics that may occur between different production batches, samples presented, and photographic representations of the products marketed by CS3 Surfaces. These variations are intrinsic to the materials used and the manufacturing processes, reflecting the individuality of each piece and do not constitute manufacturing defects. The visual differences result from the technical specifics of extraction, processing, and exposure of the materials and are therefore excluded from the scope of coverage of this Warranty Certificate.

CS3 Surfaces remains committed to providing the best experience for our customers and offering opportunities and solutions with quality.

SOURCES FOR REFERENCE

FRASCÁ, M.H.B de O.; RODRIGUES, E. de P. **Orientações para limpeza, manutenção e revitalização de revestimentos rochosos**. Brasília: ABIROCHAS, 2019. 28 p. il. Projeto Academia das Rochas, Série Arquitetura, Documento 05.

Acessível em http://cms.academiadarocha.com.br/wp-content/uploads/2020/06/DT_Arquitetura/DTA_05/DTA-05.html

RODRIGUES, E. de P.; CHIODI FILHO, C. **Orientações para aplicação de rochas em revestimentos**. Brasília: ABIROCHAS, 2019. 60 p. il. Projeto Academia das Rochas, Série Marmoraria, Documento 16.

Acessível em <http://cms.academiadarocha.com.br/wp-content/uploads/2020/06/DT-Marmorarias/DTM-16/DTM-16.html>

RODRIGUES, E. de P.; CHIODI FILHO, C. **Guia de Aplicação de Rochas em Revestimentos; 2ª edição revista, atualizada e ampliada**. Brasília: ABIROCHAS, 2020. 236 p. il.

Acessível em <https://abirochas.com.br/ebooks/bula/#p=1>

RODRIGUES, E. de P.; GOMES JR., U. L. **Patologias em rochas de revestimentos – causas, prevenções e tratamentos**. Brasília: ABIROCHAS, 2019. 47 p. il. Projeto Academia das Rochas, Série Marmoraria, Documento 18.

Acessível em <http://cms.academiadarocha.com.br/wp-content/uploads/2020/06/DT-Marmorarias/DTM-18/DTM-18.html>



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