INFORMATION SHEET
for product PORCELAIN STONEWARE CERAMIC

*This **information sheet** provides guidance on the composition and safe use of the product.*

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1. Identification of product and company

Type of product and use	PORCELAIN STONEWARE CERAMIC FOR FLOORS AND WALLS
Manufacturer/supplier	ITALCER S.P.A. SB

2. Information/Mineralogical composition

The product is manufactured from inorganic, non-metallic raw materials in powder form, such as clays, feldspars and sands.

The powders are fired at a high temperature (above 1200°C) and transformed into solid ceramic objects with a partially crystalline and partially amorphous structure.

MINERALOGICAL COMPOSITION:

Substance	***CAS number***	***Estimated % p/p***
Silica amorphous	*7631–86-9*	*58-66%*
Crystalline Silica (Quartz - SiO2)	*14808-60-7*	*18-27%*
Mullite	*1302-93-8*	*3-9%*
Feldspar	*68476-25-5*	*2-9%*
Corundum	*1302-74-5*	*0-3%*

3. Hazard identification

The fired ceramic product is odourless, stable and non-flammable and does not pose a health risk. It does not release substances of any kind (fumes/gases/vapours/dust) after installation. It is not considered hazardous waste at the end-of-life stage.

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More details The values of ceramics Watch the video

(other languages)

4. First aid measures

Not applicable.

The product does not pose a health risk; the product is monolithic. However, observe the instructions provided in sections 6, 7 and 8 of this sheet during handling/machining.

5. In case of fire

The product is inert and fireproof, it has high mechanical strength and chemical resistance, and it remains unchanged over time.

In the event of fire, the product does not burn or degrade and consequently does not release substances that may be harmful to humans or the environment.

The product is classified as Class A1 in accordance with EN 13501-1:2019.

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More details Ceramic does not burn Watch the video

(other languages)

6. Techniques for reducing dust when cutting.

To reduce the production of dust when cutting, the score-and-snap method is recommended.

An electric wet tile cutter performs a straight and precise cut in a very short time without releasing dust into the environment.

An angle grinder can be used to cut any desired shape and meet design specifications. To reduce the quantity of dust released, be sure to wet the tile frequently, either manually or using devices integrated with the grinder.

Avoid dry cutting with power tools.

The literature on emissions generated when cutting cement products reveals that the use of a wet saw reduces respirable crystalline dust by 99% compared to the use of a power saw without water control[1]. Other studies show that respirable crystalline silica emissions are about 50 times lower when using the score-and-snap method than when using wet power tools and are about 1,000 times lower than when cutting with a power saw without dust suppression devices[2].

7. Handling and storage

Machining:

Wear gloves and safety shoes during handling, cutting and grinding operations.

Handling and storage:

[1] Carlo RV, Sheehy J, Feng HA, Sieber WK; "Laboratory evaluation to reduce respirable crystalline silica dust when cutting concrete roofing tiles using a masonry saw", Journal of Occupational and Environmental Hygiene, 2010, 7: 245-251

[2] "Human Health Risk Assessment for Proposition 65: Crystalline Silica"; Environmental Health & Engineering, Inc. (EH&E), June 2018.

For packs weighing more than 25 kg or when handling large size products, it is recommended to use mechanical load handling tools or to have two or more operators move the load and/or to observe the provisions of technical standards (ISO 11228-1:2022) and current legislation (in Italy Legislative Decree 81/08 as amended and supplemented).

The maximum load-bearing capacities of the storage facilities must be observed when storing the product.

Storage life is unlimited.

8. Personal protection / Exposure control

Personal protection equipment (PPE):

Performing the machining operations as recommended in point 6 above significantly reduces dust production. Dry cutting is the only operation liable to produce dust and consequently lead to the risk of exposure to respirable crystalline silica.

To limit dust generation:

We recommend wet cutting or the score and snap method during the installation process. Do not dry cut using power tools during the installation process. Improper installation techniques could expose installer to harmful dust.

Personal protection equipment		***Respiratory protection*** *When dry cutting and/or operating in enclosed areas with inadequate ventilation, use a respirator with a dust/mist filter.*
		***Protective gloves*** *The product may have sharp edges, so cut-proof gloves should be worn during machining/handling operations.*
		***Safety glasses*** *Required in dusty environments and to avoid injury caused by fragments during cutting.*
		***Safety footwear*** *Safety footwear should be worn when handling/machining the product.*

The personal protection information provided in this section is based on general information for standard use and under normal conditions (wet cutting or the score-and-snap method). In the event of special or unusual uses or conditions, the assistance of an industrial hygienist or other qualified professional should be sought for the use of appropriate protection equipment.

9. Physical and chemical properties

Appearance	Solid – stable product
Odour	Odourless
Melting point	>1200°C
Flash point	Not applicable
Self-ignition	Product not self-flammable
Risk of explosion	Product not explosive
Water solubility	Non-soluble
Risk of explosion	Product not explosive

10. Stability and reactivity

Ceramic is resistant to chemical attack and is a hygienic product that helps to maintain healthy environments.

Ceramic does not deform or freeze and is unaffected by variations in temperature. It is resistant to even the most aggressive chemical cleaning agents and can be used in any application, including exterior building façades where it improves aesthetic quality and ensures thermal insulation and protection from the elements.

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More details *(other languages)*

Resistance to cleaning products

11. Toxicological information

Clay bricks, tiles, refractory materials and pipes may generate dust when cut using improper methods.

To minimise the production of dust, follow the instructions provided in point 6 above.

Several studies[3] have shown that the dust released when cutting porcelain stoneware tiles consists of both crystalline and amorphous phases, generally in a ratio of approximately 30:70. The crystalline phase usually consists of quartz and residual components such as feldspar and mullite.

Only a very small fraction of the quartz generated during cutting can be classified as respirable crystalline silica. This small fraction must be taken into account in order to assess the potential risk to the operator's health and the protective measures that should be adopted.

For respirable crystalline silica dust, the Occupational Safety and Health Administration (OSHA) defines the action level as a concentration of airborne respirable crystalline silica of 25 µg/m^3, calculated as a time-weighted average over an 8-hour working day and a 40-hour working week.

A study conducted in 2018[4] shows that the potential harmful effects associated with exposure to respirable crystalline silica generated during cutting operations are 75 times lower than the threshold of 1 in 100,000 set by the Californian law Proposition 65[5], better known as the "Safe Drinking Water and Toxic Enforcement Act of 1986".

12. Ecological information

During manufacture of the product:

- the company recycles all process water at the grinding stage / feeds process water into internal treatment plants and reuses it internally or externally;

[3] C. Zanelli, M.Raimondo, G.Guarini, M.Dondi; "The vitreous phase of porcelain stoneware: Composition, evolution during sintering and physical properties"; Journal of Non-Crystalline Solids; 357 (2011): 3251-3260.
[4] "Human Health Risk Assessment for Proposition 65: Crystalline Silica"; Environmental Health & Engineering, Inc. (EH&E – Boston, Massachusetts), June 2018.
[5] https://oehha.ca.gov/proposition-65

- production waste is recycled;
- natural gas is burned only for the purpose of energy production. Combustion process emissions are kept below strict limits and monitored. Measures are taken to protect the environment.

The product can be crushed mechanically without creating a risk for the environment and can be reused in a wide range of different applications, e.g. aggregates for concrete or road construction.

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More details *Sustainability*

(other languages)

13. Disposal information

According to the European Waste Catalogue (EWC), ceramic tiles fall into group 17 “Construction and demolition wastes - tiles and ceramics” (code: 17 01 03).

14. Transport information

Not applicable.

ADR / RID / ADN regulations do not apply to the transport of ceramic tiles.

15. Regulatory information

Production process:

The product was manufactured in a factory that applies and implements management systems in accordance with the following international standards:

ISO 9001:2015 — **Quality**

ISO 45001:2018 — **Safety**

ISO 14001:2015 — **Environment**

EMAS GESTIONE AMBIENTALE VERIFICATA reg. n. IT-000907

The product

The article complies with the European provisions identified in Regulation 1272/2008 on classification, labelling and packaging of substances and mixtures and Regulation 1907/2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

The product meets the requirements of the following standards:

- ISO 13006:2018 - Definitions, classification, characteristics and marking;

- EN 14411:2016
- EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.
- UNI EN 13501-1:2019, Fire classification of construction products and building elements

16. Other information

The industry-wide EPD (Environmental Product Declaration) supplied since 2015 with products manufactured by Italian companies belonging to Confindustria Ceramica is available at the following link.

https://www.ceramica.info

The association Confindustria Ceramica promotes sectoral studies and encourages the adoption of guidelines with the aim of improving the sustainability of Italian ceramic products.

For further information:

https://www.gruppoitalcer.it/sustainability/

This Technical Data Sheet is provided upon request of the consumer/recipient. The sole purpose of this document is to inform consumers about the measures that should be taken to ensure the safe use of the supplied product.