

# Technical information

## Basic characteristics

Technistone® is a compact, durable, non-porous, composite material made of hard, inorganic granulates which are closely bonded and colored with appropriate pigments. Once processed, the product has a perfectly straight, flat, resistant surface and can be cut into different dimensions. Technistone® quartz surfaces are offered as slabs and tiles. They are suitable as kitchen countertops, bathroom surfaces, tiles, stair treads and risers, window sills and any other part of the interior. It is perfect for high traffic areas such as floors in hotel corridors, airport halls, office buildings or commercial centers.

Technistone® materials are ideal for use in the furniture industry, as countertops in hotels and restaurants, tables, kitchen countertops and bathroom vanities. It can also be used in the construction of wooden and iron furniture. Due to its excellent mechanical characteristics and chemical resistance, Technistone® has been successfully applied as laboratory countertops and as floor tiles in industrial halls and supermarkets. Technistone® quartz surfaces are made from crushed selected granite, silica sand, and for some products, crushed mirrors; blended and bound with a high performance polyester resin, and colored with pigments. Technistone®, due to its low absorbent properties, meets the most stringent hygienic requirements. It is approved for both the food-processing industry and public spaces.



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# Technical parameters

## Dimensions of slabs

Each slab dimensions are 306 x 144 cm/120,47 x 56,7 in with net surface 4,35 sqm/46,75 sqft (i.e. 305 x 142,5 cm/120,08 x 56,1 in) or 305 x 141,5 cm/120,08 x 55,7 in with net surface 4,26 sqm/45,79 sqft (i.e. 304 x 140 cm/119,69 x 55,12 in). Standard thicknesses are 12 mm, 20 mm and 30 mm/0,47 in, 0,79 in and 1,18 in.

## Dimensions of tiles

Standard tile dimensions are: 30 x 30 cm/11,81 x 11,81 in, 30 x 60 cm/11,81 x 23,62 in and 60 x 60 cm/23,62 x 23,62 in. Standard thicknesses are: 10 mm/0,39 in and 12 mm/0,47 in. For special 20 mm/0,79 thickness or other dimensions please contact your Technistone representative.

## Weight (may differ for various materials)

Thickness	Weight of 1sqm/1sqft	Weight of one slab
12 mm/0,47 in	30 kg/66 lb	128 kg/282 lb
20 mm/0,79 in	50 kg/110 lb	212 kg/467 lb
30 mm/1,18 in	75 kg/165 lb	318 kg/700 lb

## Special surface protection

Protection of the product with special surfaces (antique, matt, honed, brushed, slate, ardesia and anticato). Even though this product complies with the highest quality requirements, it is necessary due to technological reasons that this design surface is sealed with one of the recommended product listed in Manual for Cleaning and Maintenance or its equivalent before final installation.

Technistone recommends highly trafficked surfaces and products Intended for commercial use (industrial floors, public toilets, hotel and restaurant kitchens, etc.) to be impregnated and sealed regularly.



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## Content of particular components

Production group	Trade names	Nature, Inorganic components	% by weight	Binder	% by weight	Coloring additives	% by weight
<b>Sand</b>	Elegance Gobi	Silica sand, glass	89,0 - 91,0	Resin	8,5 - 10,5	Color pigments	<0,1 - 0,5
<b>Granite</b>	Taurus Sonora Karpat Classic	Granite, silica sand, quartz	90,3 - 92,0	Resin	7,5 - 9,2	Color pigments	<0,1 - 0,5
<b>Mirrors</b>	Starlight Fresh Venetian Brilliant	Crushed mirrors glass, silica sand, quartz	88,2 - 92,0	Resin	7,8 - 10,8	Color pigments	<0,1 - 1,0
<b>Crystal</b>	Crystal Classic Harmonia Noble	Quartz, silica sand, crushed mirrors, glass, granite	84,5 - 90,5	Resin	7,8 - 13,8	Color pigments	<0,1 - 1,7
<b>Marble</b>	Atlas	Marble, silica sand,	89,5 - 92,0	Resin	7,5 - 10,0	Color pigments	<0,1 - 0,5

## Technistone® product characteristics

Production group	Density (g/cm³)		Water absorption after 48 hours (%)		Flexural strength (MPa)	
	range of values	average value	range of values	average value	range of values	average value
Sand	2,35 - 2,44	2,40	0,01 - 0,05	0,02	42 - 74	59
Granite	2,40 - 2,58	2,44	0,01 - 0,07	0,03	32 - 55	44
Mirrors	2,32 - 2,42	2,39	0,01 - 0,05	0,03	32 - 68	47
Crystal	2,21 - 2,47	2,41	0,01 - 0,05	0,02	40 - 95	63
Crystal coarse grained	2,43 - 2,47	2,45	0,02 - 0,04	0,03	29 - 47	38
Marble	2,48 - 2,50	2,50	0,03 - 0,04	0,03	50 - 51	50
Applied standard	EN 14617-1		EN 14617-1		EN 14617-2	
Stated			Technistone Laboratory			

The range of values corresponds to the lowest and the highest result achieved within all products in the production group. The average value does not correspond to the specific value within the range, but to the average of all products' results in the production group.

Production group	Thermal expansion coefficient $\alpha$ (30 to 60 °C)	Thermal expansion coefficient $\alpha$ (20 to 130 °C)	Frost resistance coefficient (average)	Abrasion (average)
	( $10^{-6}$ /°C)	( $10^{-6}$ /°C)	-	(mm³)
<b>Sand</b>	21,8	30,0	90 - 110	6840
<b>Granite</b>	13,4	17,3	90 - 110	8125
<b>Mirrors</b>	17,5	22,7	90 - 110	7900
<b>Crystal</b>	17,5 - 34,6	22,7 - 40	90 - 110	6700
<b>Marble</b>	19,9	28,3	90 - 110	13901
<b>Applied standard</b>	EN 14617-11	EN 14617-11	EN 14617-5	EN 4157 (B)
Stated	TZÚS Plzeň		Stone and gravel test plant Hořice	

## Maintenance and cleaning of Technistone® products

- Test the cleaning or sealing agents before usage on a small area. Evaluate the results of the fully dried product on the test area and only then start the full application.
- Most agents are to be diluted according to the manufactures' Instructions.
- Completely remove the cleaning agent and the released impurities from the product surface quickly and carefully and wash the surface thoroughly with pure water.
- Longer, unrequired exposure to aggressive cleaning agents may erode the product surface!
- The product surface will not resist long-term exposure to strong alkalis (NaOH, KOH) and will not resist any exposure to hydrofluoric acid (HF). These chemicals are contained in some cleaning agents available on the market. Therefore, it is important to clean the surface with products suited for cleaning of the quartz surface, which are not identical to cleaning agents for natural granites or ceramics.
- For cleaning, especially after the installation and joining of floor tiles, use only recommended products and not mix chemicals (lye, hydrochloric acid, hypochlorite). It is recommended that the cleaning and maintenance of larger surfaces to be performed by a specialized personal experienced in maintenance of the Technistone® quartz surfaces.
- Follow the manufactures' recommendations listed on cleaning agents, especially sections dedicated to the usage (e.g. dilution) and safety regulations. Use protective equipment based on manufactures' recommendations.
- Maintain Technistone® products with standard cleaning chemicals (non-concentrated). In the event of more frequent cleaning, the cleaning products from the following companies are highly recommended: TS Orange Cleaner - Technistone a.s., Fila, Bellinzoni, Moeller Chemie, Lithofin, HG International, Akemi, Rako System.

For more information visit us at [www.technistone.com](http://www.technistone.com).

## Precautions

Do not place any objects directly from the stove or oven on the quartz surface. Use insulating pads.

Slabs must be stored inside (or covered to protect against UV light) in the vertical position on the compact stand so that the back sides of the slabs fully touch and so that no part of the slab overlaps.

## Certificates



Produced with Italian Breton technology and doesn't contain any volatile compounds.



Technistone® is certified by the independent world recognized SCS on the content of recycled material in its products.



Certificate EN ISO 9001.



The product was certified by the NSF International – the product is in compliance with the 51 NF/ANSI Standard – Food equipment materials. Material is suitable for food contact.



Tile Council of North America, Inc. The product does not contain any volatile compounds.



Technistone® is a member of the U.S. Green Building Council, a nonprofit organization committed to a prosperous and sustainable future through cost-efficient and energy-saving green buildings.



World-Wide Agglomerated Stone Manufacturers Association assists, safeguards and represents its Members when facing issues regarding them, directly or indirectly, while promoting mutual collaboration among its Members.

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