Technistone Technistone Technistone Stone CON Stone Technistone

www.technistone.com everlasting beauty TechniStone

AM

I am a daughter of Rock and Fire, a son of the Water and the Wind.

I am the next generation of Creativity,

a follower of the active Mind,

a listener to the human Wish

the next step of eternal Inspiration.

I am Harmony of the Contrary,
the Beauty of Nature and the Intelligence of Technology,
the Past and the Future
the Experience and the Concept
the Stability and the Flow.

Looking for sense of Value?

Looking for the meaning of Desire?

I am here.
I am **Everlasting Beauty.**

I am TechniStone®.

everlasting beauty

TechniStone®



PRODUCTION

PRODUCT

COLOR RANGE

REFERENCES

DISTRIBUTION

COMMUNICATION



With headquarters situated in Hradec Kralove, Technistone builds upon more than 20 years of quartz surface production tradition in the Czech Republic. The production of high quality and innovative quartz surfaces, known as Bohemiastone, had begun already in September, 1992. In the early stages, the most iconic and worldwide famous products, called Starlights, were developed and introduced into the market. These remain the world reference for premium quartz surfaces until the present day. Bohemiastone was transformed into Technistone, a.s. in 1997. Its extensive experience in manufacturing of high quality and design products predetermines its wide distribution network. Technistone successfully exports quartz surfaces to more than 75 countries across 5 continents. The Quality Management System controls company processes related to R&D and innovation, product management, manufacturing, quality management, supply chain, marketing, and business. The Technistone team consults and coproduces manufacturing technologies and works on product and process innovations.



Technistone quartz-surfaces are produced from high-quality natural raw materials (quartz and granite), mirror and glass granules, a small amount of color pigments and polyester resin. They are available in slabs or formats (tiles). Due to the extremely clean and quality raw materials and original production technology, Technistone achieves excellent properties regarding strength and compactness.

All customers highly appreciate Technistone's great features – easy maintenance, non-porous surface and high bacterial and scratch resistance. Thanks to its unique characteristics industry professionals find it to be the perfect choice for commercial and residential facilities all over the world. Extensive range of colors and patterns offers an endless stream of possibilities to combine engineered stone with the attributes of your interior.

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COMPANY MOTTO

We Must do what we say, and what we do Must bring Benefit to our Customers.

COMPANY VISION

Technistone's Research and Development Department and own modern production facilities are the foundation to produce high quality stone slabs; tempered with high utility, value and design, consistent with current trends worldwide, and to sell them within the global distribution network with a high level of logistics service.

SUCCESS

"Success is not a destination, it is a path, it is a direction we are going. Success is not permanent and failure is not fatal. People who have a goal, succeed because they know where they are going."

ACTION

"Vision without action is a dream, action without vision is a journey through the darkness. Our corporate vision gives direction to our work and determination."

PEOPLE

"If we did not hire and did not employ great people and did not act with them full speed ahead, we would too easily loose our positions and we would become just an average company."

COMMITMENT

"Sometimes you need the determination to just jump and let wings grow on the way down. The harder the struggle, the more amazing is the triumph."

PERSEVERANCE

"If there is a path in life without obstacles, it certainly leads nowhere. Even Technistone has overcome many obstacles, but perseverance and concerted efforts led the company up to its current position of a globally recognized leader in the field of quartz production."

TECHNISTONE

"Globally, we are perceived as young, energetic and modern company from the heart of Europe."



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The business and its values in company as stated by Radek Prusa, CEO Technistone

WORKING TEAM MAKES VALUE

SUCCESSFULLY DO BUSINESS ON ALL CONTINENTS

Technistone not only takes a strong position in its home European region, but also is a significant global player. Our business partners are from more than 75 countries, and so we do business on every continent, save one of course. Geographical diversification of business frees us from dependence on individual territories with more or less a stable political and economic situation, which is an important guarantee for the stability of the whole company. This is also reflected in the results when Technistone was able to achieve strong growth for several years in a row.

QUARTZ IS THE MATERIAL OF THE FUTURE

We provide a range of custom surveys of individual markets and also we receive information from independent studies. Therefore, we can say that. In many territories of our current exposure, and even those of future interest, significant increase in demand, some up to five times compared with the current situation, are expected to remain. This is due not only to the development of construction activity, but as well as changing tastes and the requirements of higher quality materials that common substitutes such as natural stone or laminate no longer fulfill. To achieve significant success new products that we continually introduce to the global market are keystone. These are mainly products of our lines of Noble, ECO and upgrades of traditional products, such as Starlights. These innovations are successfully introduced at the world exhibitions, collecting the deserved attention and interest.

CUSTOMER SATISFACTION

In collaboration with our customers, we always try to find the optimal solution that leads to long-term satisfaction of all business partners in the subsequent processing and distribution chain. The optimal solution is found not only in the realization of business transactions, but also through ongoing support and service for after-sales phase. Every year we have conducted a customer survey of satisfaction and for us, this is repeatedly clear proof that we are doing the right things right, and that we can honorably compete in the toughest conditions of global competition.



Jiri Tupy Sales Director

"Quartz materials are certainly considered to be a material of the future".



Jiri LudvikR&D and Quality Director

Own product research and development by generating the broad range of inventions is the cornerstone of Technistone's business concept, rooted in the vision and objectives of the company - to offer high quality slabs made of hardened stone matching the most current trends in design and requirements of our customers.

The research team for each task collaborates with universities, research and testing institutes in the Czech Republic and abroad. We also pride ourselves for our strong cooperation with raw material suppliers, particularly from the chemical industry in the European Union, and also with suppliers of materials from local sources. Our experienced team of developers created the successful product line of "Starlight", which is recognized as the benchmark for this type of product. They are also prepared to implement customer requirements to quickly and flexibly respond to market demands ensuring the resulting product exactly matches their expectations.

Since the development and launch of "Starlights" in 1993. Technistone® has surpassed several production process milestones which have led to our current position; of premium and luxury material finishes and designs. Technistone teams are dedicated to innovations of product, technology and processes. The most significant are innovations of: slab sizes, expansion of production capacity, development of our own product maintenance material, placement of the whitest product as the world standard, product lines for exterior facades of buildings, expanding the portfolio of colors and textures of the product within five marketing collections, and especially the development of products inspired by marble in our series Noble. Our custom design and development process is certified by ISO 9001 Quality System. Links to the world's leading manufacturer of chemicals and consistent application of the system of internal and external quality control audits, ensure high quality development efforts. Technistone perceives its importance even in the issue of sources of natural stone as a real-world substitute with improved performance properties and respectable appearance. Technistone's sustainability through the proper use of technology results in a near perfect copy of the natural environment without damaging it.

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TECHNISTONE THROUGH TIME

1991

Construction of the factory in Hradec Kralove, Czech Republic, as one of 4 companies worldwide in this field

 Beginning of the production of engineered stone in Hradec Kralove with original Italian Bretonstone technology; slabs width of 120 cm

- Development and market launch of iconic Starlight Collection
- Former company was transformed into Technistone
- Development and market launch of Crystal Collection
- Products from Starlight Collection, which are based on mirror cullets, are officially evaluated as a worldwide benchmark in this class of products
- Transformation of the company into a joint-stock company, Technistone, a.s.
- Increasing the width of the slabs to 132 cm (size 303x132 cm)
- Development and launch of Taurus Brown Pearl based on natural labradorite
- Company certification according to EN ISO 9001
- Product certification according NSF/ANSI Standard 51 Food equipment Materials
- Development and business launch of new Venetian Collection
- Installation of second production line, using modern technology of rubber moulds
- Start of production of slabs with new textured surface Slate
- Width change of products from first production line to 140 cm
- Development of Classic & Harmonia Collections and unique Crystal Absolute White
- Product certification for recycled content SCS certification
- Launch of Noble Collection with a marble look
- Membership in the U.S. Green Building Council
- Increasing the width of the slabs to 144 cm
- Membership in the NKBA (National Kitchen & Bath Association)
- Indoor Advantage Gold certification and Health Product Declaration
- Market launch of Starlight coffee colors
- Market launch of Elegance Eco colors



SPREADING STORAGE SPREADING STORAGE

PRODUCTION

The technology of our engineered stone is based on the production of semi-finished products which are subsequently processed into the final product. There are the following operations:

- Raw material entry inspection
- Preparation of necessary raw materials for the production of semi-finished products (primary operations are drying, crushing, sorting, weighing and transport of raw materials)
- The pressing line mixing, spreading and pressing of semi-finished products
- The finalization line converting semifinished products into the final product
- Final product quality control
- Detailed product quality inspection

RAW MATERIALS PREPARATION

Raw materials inspection, sorting and cleaning / Tanks for UP resin / Silos for filler and silica sands / Storage of selected quartz grits in big-bags / Grinders for crushing of mirrors, granites... / Two sets of vibrating sorters and separators / Silos for crushed and sieved grits / Machine for pigments mixing

SLABS PREPARATION

Mixing

According to Technistone's special formula and know-how; raw materials flow into the mixing machines, where inorganic grits, fillers and pigments are mixed with UP resin. The whole process is computerized.

Spreading

Prepared mixture is transported to special spreading equipment. Firstly, the mixture of material is either filled into rubber mould (line LL2) or between two paper sheets (line LL1). Next, it is evenly spread.





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Pressing

Special vibro-press machine changes the mix of materials in a vacuum environment into the compact mass by vibration. Prepared slab is free of any gaps or bubbles between individual particles.

Kiln

The material is carefully put into the curing oven where it is heated on both sides to the appropriate temperature. This causes the polymerization of the polyester resin in the slab and ensures it is cured completely. After that, the newly formed slab is cooled down.

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FINISHING OPERATIONS

Calibrating & Polishing

The slabs are measured and calibrated to the required thickness and finalized. The product surface is finished step by step in a polishing machine by special tools. Based on customers' demands, products' surface treatment is performed to obtain a polished, honed, brushed, antique, matt or ardesia surface finishing.

Tiles Cutting

Slabs with dimensions of 306 x 144 cm can be further cut to almost any sizes. The most common sizes are 30x30, 40x40, 60x60 cm. Tile edges can be bevelled up to size 60x60 cm.

Quality Control, Storage & Expedition

All slabs are inspected and sorted according to their quality by trained personnel. Each controlled slab is measured by an objective color measurement system to determine exact color shade. The result: high quality products and satisfied customers. Finally, the slabs are safely stored in a warehouse and dispatched at regular intervals to customer.



SIZE PROPERTIES CERTIFICATES ADVANTAGES SURFACE MEMBERSHIP GUARANTEE

Technistone quartz

is high-quality, nonporous, composite material, created from hard, inorganic, polishable granulates, compactly bound together with a binder and a filler and colored with various pigments; having a smooth, resistant surface, in a variety of sizes and with a wide range of applications. Technistone has a significant number of uses in the interior and exterior of private, public and industrial buildings such as kitchen worktops, bathroom tiles, table tops, window sills, paving, tiles, stairs, mosaics, etc.

Surfaces

The standard surface is polished. Other special surfaces (matt, antique, honed, brushed, ardesia, anticato) are available on request.

Sizes and thicknesses

Basic dimensions of the slabs are 306×144 cm with usable area 4,35 sqm (i.e. 305×142 ,5 cm) or 305×141 ,5 cm with usable area 4,26 sqm (i.e. 304×140 cm), produced in 12: 20 and 30 mm thicknesses.

Tiles – 30×30 cm, 60×60 cm, 30×60 cm and other special formats \times 10 mm; 12 mm; 20 mm.

Technistone production

Technistone uses **BRETON TECHNOLOGY** – original high quality Italian technology for stone processing.

The quartz surface, depending on the type of product group, is:

- $90\ \%$ of natural raw materials (crushed quartz, mirrors, glass and granite)
- 10 % of technological improvements (high performance polyester resin, color pigments and special additives)

TECHNISTONE AWARDS

The best construction materials producer

There are a series of contests in construction and architecture organized every year to estimate the successes of developers, building companies, designers, and project architects. As in all mentioned branches, the necessary component is the building materials production. Another competition takes a part in among all running ones and it is dedicated to the producers. The aim is to highlight, for a layman and professional audience, the most modern processing operations and factories of the construction—materials industry in the Czech Republic. Specialists to supervise and guarantee are, The Construction Entrepreneurs Union CZ, URS Prague and the Ministry of Industry and Trade CZ.

Technistone is proud to announce being awarded or nominated for each year.

The best innovation of the year

Technistone has been awarded with The Certificate of Merit in The 18th year of the Prize The Best Innovation of the Year 2013 for its unique product with an area–wide shimmering effect of the metallic grains – Venetian Galaxy.

Awards of quality

Technistone has joined 7th annual awards of quality in the category Product – technology for the building and architecture, organized by Czech foundation for development the architecture and building.

The International Golden Award for Excellence and Business Prestige

Technistone is a holder of The International Golden Award for Excellence and Business Prestige.

COMPETITIVE ADVANTAGES

Big potential for **UNIQUE DESIGN** possibilities; the color and texture of each stone are unique; it is an opportunity of individual design ideas and original solutions

DURABILITY - exceptional hardness and strength

RESISTANCE to high temperatures, chemicals, abrasion and scratches

NO BACTERIA growth; thanks to extremely low porosity, engineered stone satisfies all hygienic requirements and is also very easy to maintain

HIGH STAIN RESISTANCE in daily practical using (against to red wine, coke, oil, coffee and others)

LOW WASTE BY FABRICATION when compared to natural stone (no veins and cracks)

EASY POLISHING, CUTTING AND MANUFACTURING (same like granite)

LESS HEAVY than natural stone, but more flexible

SURFACE UNIFORMITY; easy connection with other parts due to same structure

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PRIMARY ADVANTAGES

OWN RAW MATERIAL PREPARATION FACILITY (main operations are cleaning, drying, crushing, sorting, weighing and final inspection of raw materials). Technistone has complete quality control of all raw materials, which are the backbone of quartz engineered stone.

OWN DEVELOPMENT DEPARTMENT; one of the most important activities of Technistone; our experienced team is able to create successful products such as the Starlight Collection, so that Technistone can meet the specific needs of customers around the world.

Technistone is a **EUROPEAN PRODUCER** of quartz surfaces with over 20 years of experience and **QUALITY MANAGEMENT SYSTEM.**

Technistone has production LINES FOR TILES.

Specific	Specific composition of Technistone products									
Production Group	Trade names	Natural, inorganic components	% by weight	Binder	% by weight	Coloring additives	% by weight			
Sand	Elegance, Gobi	Silica sand, glass	89,0 – 91,0	Resin	8,5 – 10,5	Color pigments	< 0,1–0,5			
Granite	Taurus, Sonora, Karpat	Granite, silica sand, quartz	90,3 - 92,0	Resin	7,5 – 9,2	Color pigments	< 0,1–0,5			
Mirrors	Starlight, Fresh, Venetian, Brilliant	Crushed mirrors, glass, silica sand, quartz	88,2 - 91,2	Resin	7,8 – 10,8	Color pigments	< 0,1-1,0			
Crystal	Crystal, Classic, Harmonia, Noble	Quartz, silica sand, crushed mirrors, glass, granite	84,5–90,5	Resin	7,8 – 14	Color pigments	< 0,1–1,7			

BASIC CHARACTERISTIC OF PRODUCTION GROUP

SAND

Trade name: Gobi, Elegance

Property	Test method	Unit	Required values	Range of values	Avarage value
Apparent density	EN 4617-1	g/cm ³	minimum 2,3	2,35–2,44	2,39
	ASTM C97	lb/ft³	-	=	151,3
Water absorption	EN 14617-1	%	maximum 0,06	0,01-0,05	0,03
	ASTM C97	%	-	-	0,01
Flexural strength	EN 14617-2	MPa	minimum 40	44–71	57
	ASTM C880	psi	-	-	5771 (dry) / 6698 (wet)
Linear thermal expansion coefficient α ΔT (30-60)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 30	-	21,8
	ASTM E228	10 ⁻⁶ × °C ⁻¹	-	-	22,4
Linear thermal expansion coefficient α ΔT (20-130)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 35	-	30
Abrasion resistance	EN 14157 (B)	mm ³	maximum 7300	-	6840
	ASTM C241-09	-	_	-	79,16
Freeze thaw resistance	EN 14617-5	-	minumum 80	90–110	-

Property	Test method	Unit	Result	Notes
Impact resistance	EN 14617-9	cm	58–83	Height necessary to destroy 20 mm sample by 1 kg ball
Reaction to fire	EN 13501-1	class	B-s2, d0	For tiles only: A2fl s1*
	DIN 4102-1	class	B1	
	ASTM E84 -10	class	A	
Resistance to Chemical Substances	EN 14617-10	class	C4	
	ASTM C 650	_	not affected	
Thermal shock resistance	EN 14617-6	-	mechanical characteristics without any changes	
	ASTM C484	-	no visual defects	
Dimensional stability	EN 14617-12	class	A	
Resistance to Staining	EN ISO 10545-14	class	5	
	ASTM C1378	-	no effect	
Modulus of Rupture	ASTM C99	psi	5699 (dry) / 6904 (wet)	
Breaking Strength	ASTM C648	lbf	1625	
Hardness according to Mohs	EN 101	-	7	
Slip resistance	DIN 51130	class	R9	Polished surface
(Ramp test)			R10	Matt surface
Slip resistance	P CEN/TS 16165	-	52-58 (dry conditions) / 15-16 (wet conditions)	Polished surface
(Pendulum method)		-	70 (dry conditions) / 42 (wet conditions)	Matt surface
Static coefficient of friction	P CEN/TS 16165	-	0,64 - 0,90 (dry conditions) / 0,32 - 0,56 (wet conditions)	Polished surface
		-	0,57 (dry conditions) / 0,54 (wet conditions)	Matt surface
Dynamic coefficient of friction	P CEN/TS 16165	-	0,41 - 0,44 (dry conditions) / 0,32 - 0,38 (wet conditions)	Polished surface
		_	0,53 (dry conditions) / 0,50 (wet conditions)	Matt surface
Static coefficient of friction	ASTM C0128	-	0,86 (dry conditions) / 0,57 (wet conditions)	Polished surface

Property	Test method	Result
Suitability for food contact	NSF/ANSI Standard 51 Food equipment materials – Food / Splash zone	material is safe and suitable for food contact
Suitability for interior using	SCS EC 10.3-2014 Indoor Air Quality Performance Standard and CA 01350	no volatile organic compounds (VOC) were found in product
Health Harmless Product	Regulation EC No 1935/2004 and EU No. 10/2011	product meets conditions for indoor usage and no volatile organic compounds (VOC) were found; suitable for contact with food



GRANITE

Trade name: Taurus, Sonora, Karpat

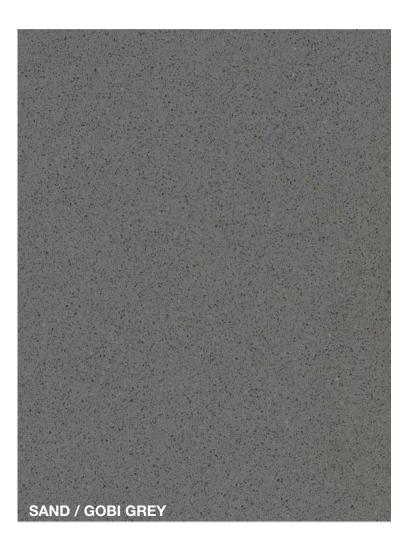
Property	Test method	Unit	Required values	Range of values	Avarage value
Apparent density	EN 4617-1	g/cm³	minimum 2,3	2,40-2,58	2,48
	ASTM C97	lb/ft³	-	-	151,3
Water absorption	EN 14617-1	%	maximum 0,09	0,01-0,07	0,04
	ASTM C97	%	-	-	0,01
Flexural strength	EN 14617-2	MPa	minimum 30	32-55	46
	ASTM C880	psi	_	-	5771 (dry) 6698 (wet)
Linear thermal expansion coefficient α ΔT (30-60)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 20	-	13,4
	ASTM E228	10 ⁻⁶ × °C ⁻¹	-	-	22,4
Linear thermal expansion coefficient α ΔT (20–130)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 25	=	17,3
Abrasion resistance	EN 14157 (B)	mm³	maximum 8600	-	8125
	ASTM C241-09	-	=	=	79,16
Freeze thaw resistance	EN 14617-5	_	minumum 80	90–110	-

Property	Test method	Unit	Result	Notes
Impact resistance	EN 14617-9	cm	48–68	Height necessary to destroy 20 mm sample by 1 kg ball
Reaction to fire	EN 13501-1	class	B-s2, d0	For tiles only: A2fl s1*
	DIN 4102-1	class	B1	
	ASTM E84 -10	class	A	
Resistance to Chemical Substances	EN 14617-10	class	C4	
	ASTM C 650	-	not affected	
Thermal shock resistance	EN 14617-6	-	mechanical characteristics without any changes	
	ASTM C484	-	no visual defects	
Dimensional stability	EN 14617-12	class	A	
Resistance to Staining	EN ISO 10545-14	class	5	
	ASTM C1378	-	no effect	
Modulus of Rupture	ASTM C99	psi	5699 (dry) 6904 (wet)	
Breaking Strength	ASTM C648	lbf	1625	
Hardness according to Mohs	EN 101	_	6 –7	
Slip resistance (Ramp test)	DIN 51130	30 class	R9	Polished surface
			R10	Matt surface
Slip resistance (Pendulum method)	P CEN/TS 16165	-	52–58 (dry conditions) 15–16 (wet conditions)	Polished surface
		-	70 (dry conditions) 42 (wet conditions)	Matt surface
Static coefficient of friction	P CEN/TS 16165	-	0,64 - 0,90 (dry conditions) 0,32 - 0,56 (wet conditions)	Polished surface
		-	0,57 (dry conditions) 0,54 (wet conditions)	Matt surface
Dynamic coefficient of friction	P CEN/TS 16165	-	0,41 - 0,44 (dry conditions) 0,32 - 0,38 (wet conditions)	Polished surface
		-	0,53 (dry conditions) 0,50 (wet conditions)	Matt surface
Static coefficient of friction	ASTM C0128	-	0,86 (dry conditions) 0,57 (wet conditions)	Polished surface

GRANITE

Trade name: Taurus, Sonora, Karpat

Property	Test method	Result
Suitability for food contact	NSF/ANSI Standard 51 Food equipment materials – Food / Splash zone	material is safe and suitable for food contact
Suitability for interior using	SCS EC 10.3-2014 Indoor Air Quality Performance Standard and CA 01350	no volatile organic compounds (VOC) were found in product
Health Harmless Product	Regulation EC No 1935/2004 and EU No. 10/2011	product meets conditions for indoor usage and no volatile organic compounds (VOC) were found; suitable for contact with food





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MIRRORS

Trade name: Starlight, Fresh, Venetian, Brilliant

Property	Test method	Unit	Required values	Range of values	Avarage value
Apparent density	EN 4617-1	g/cm³	minimum 2,3	2,31 –2,45	2,38
	ASTM C97	lb/ft³	-	-	151,3
Water absorption	EN 14617-1	%	maximum 0,06	0,01-0,05	0,02
	ASTM C97	%	-	-	0,01
Flexural strength	EN 14617-2	MPa	minimum 35	36-68	49
	ASTM C880	psi	-	-	5771 (dry) / 6698 (wet)
Linear thermal expansion coefficient α ΔT (30-60)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 25	_	17,5
	ASTM E228	$10^{-6} \times {}^{\circ}\text{C}^{-1}$	-	_	22,4
Linear thermal expansion coefficient α ΔT (20-130)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 30	_	22,7
Abrasion resistance	EN 14157 (B)	mm³	maximum 8700	-	7900
	ASTM C241-09	-	-	-	79,16
Freeze thaw resistance	EN 14617-5	_	minumum 80	90–110	-

Property	Test method	Unit	Result	Notes
Impact resistance	EN 14617-9	cm	43–67	Height necessary to destroy 20 mm sample by 1 kg ball
Reaction to fire	EN 13501-1	class	B-s2, d0	For tiles only: A2fl s1*
	DIN 4102-1	class	B1	
	ASTM E84 -10	class	A	
Resistance to Chemical Substances	EN 14617-10	class	C4	
	ASTM C 650	-	not affected	
Thermal shock resistance	EN 14617-6	-	mechanical characteristics without any changes	
	ASTM C484	-	no visual defects	
Dimensional stability	EN 14617-12	class	A	
Resistance to Staining	EN ISO 10545-14	class	5	
	ASTM C1378	-	no effect	
Modulus of Rupture	ASTM C99	psi	5699 (dry) 6904 (wet)	
Breaking Strength	ASTM C648	lbf	1625	
Hardness according to Mohs	EN 101	-	6 –7	
Slip resistance (Ramp test)	DIN 51130	class	R9	Polished surface
			R10	Matt surface
Slip resistance (Pendulum method)	P CEN/TS 16165	-	52-58 (dry conditions) / 15-16 (wet conditions)	Polished surface
		-	70 (dry conditions) / 42 (wet conditions)	Matt surface
Static coefficient of friction	P CEN/TS 16165	-	0,64 - 0,90 (dry conditions) / 0,32 - 0,56 (wet conditions)	Polished surface
		_	0,57 (dry conditions) / 0,54 (wet conditions)	Matt surface
Dynamic coefficient of friction	P CEN/TS 16165	_	0,41 - 0,44 (dry conditions) / 0,32 - 0,38 (wet conditions)	Polished surface
		_	0,53 (dry conditions) / 0,50 (wet conditions)	Matt surface
Static coefficient of friction	ASTM C0128	-	0,86 (dry conditions) / 0,57 (wet conditions)	Polished surface

Property	Test method	Result
Suitability for food contact	NSF/ANSI Standard 51 Food equipment materials - Food / Splash zone	material is safe and suitable for food contact
Suitability for interior using	SCS EC 10.3-2014 Indoor Air Quality Performance Standard and CA 01350	no volatile organic compounds (VOC) were found in product
Health Harmless Product	Regulation EC No 1935/2004 and EU No. 10/2011	product meets conditions for indoor usage and no volatile organic compounds (VOC) were found; suitable for contact with food

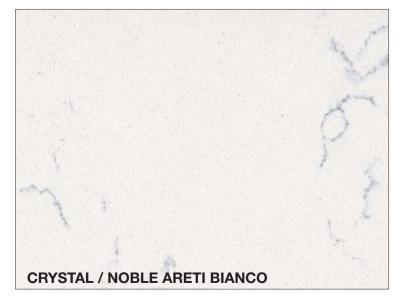
CRYSTAL

Trade name: Crystal, Classic, Harmonia, Noble

Property	Test method	Unit	Required values	Range of values	Avarage value
Apparent density	EN 4617-1	g/cm ³	1) minimum 2,1	2,20–2,37	2,3
¹⁾ Crystal (Noble) ²⁾ Crystal (grains < 2,5 mm) ³⁾ Crystal (grains ≥ 2,5 mm)			²⁾ minimum 2,1	2,20–2,44	2,37
			³⁾ minimum 2,35	2,39-2,47	2,47
	ASTM C97	lb/ft³	-	-	151,3
Water absorption	EN 14617-1	%	1) maximum 0,07	0,01–0,05	0,03
1) Crystal (Noble) 2) Crystal (grains < 2,5 mm)			²⁾ maximum 0,07	0,01–0,05	0,02
³ Crystal (grains ≥ 2,5 mm)			3) maximum 0,07	0,01-0,04	0,02
	ASTM C97	%	_	_	0,01
Flexural strength	EN 14617-2	MPa	1) minimum 60	63–93	78
1) Crystal (Noble) 2) Crystal (grains < 2,5 mm)			²⁾ minimum 50	50–97	69
3) Crystal (grains ≥ 2,5 mm)			3) minimum 30	31–54	47
	ASTM C880	psi	-	-	5771 (dry) / 6698 (wet)

Property	Test method	Unit	Required values	Range of values	Avarage value	
Linear thermal expansion coefficient α ΔT (30-60)°C	EN 14617-11	10 ⁻⁶ × °C ⁻¹	maximum 35	-	17,5–34,6	
	ASTM E228	10 ⁻⁶ × °C ⁻¹	-	-	22,4	
Linear thermal expansion coefficient α ΔT (20–130)°C	EN 14617-11	$10^{-6} \times {}^{\circ}C^{-1}$	maximum 41	=	22,7-40,2	
Abrasion resistance	EN 14157 (B)	mm³	maximum 7600	-	6700	
	ASTM C241-09	-	-	-	79,16	
Freeze thaw resistance	EN 14617-5	_	minumum 80	90–110	_	







CRYSTAL

Trade name: Crystal, Classic, Harmonia, Noble

Property	Test method	Unit	Result	Notes		
Impact resistance	EN 14617-9	cm	65–138	Height necessary to destroy 20 mm sample by 1 kg ball		
Reaction to fire	EN 13501-1	class	B-s2, d0	For tiles only: A2fl s1*		
	DIN 4102-1	class	B1			
	ASTM E84 -10	class	A			
Resistance to Chemical Substances	EN 14617-10	class	C4			
	ASTM C 650	-	not affected			
Thermal shock resistance	EN 14617-6	-	mechanical characteristics without any changes			
	ASTM C484	-	no visual defects			
Dimensional stability	EN 14617-12	class	A			
Resistance to Staining	EN ISO 10545-14	class	5			
	ASTM C1378	-	no effect			
Modulus of Rupture	ASTM C99	psi	5699 (dry) 6904 (wet)			
Breaking Strength	ASTM C648	lbf	1625			
Hardness according to Mohs	EN 101	-	7			
Slip resistance (Ramp test)	DIN 51130	class	R9	Polished surface		
			R10	Matt surface		
Slip resistance (Pendulum method)	P CEN/TS 16165	-	52–58 (dry conditions) 15–16 (wet conditions)	Polished surface		
		-	70 (dry conditions) 42 (wet conditions)	Matt surface		
Static coefficient of friction	P CEN/TS 16165	-	0,64 - 0,90 (dry conditions) 0,32 - 0,56 (wet conditions)	Polished surface		
		-	0,57 (dry conditions) 0,54 (wet conditions)	Matt surface		
Dynamic coefficient of friction	P CEN/TS 16165	-	0,41 - 0,44 (dry conditions) 0,32 - 0,38 (wet conditions)	Polished surface		
		_	0,53 (dry conditions) 0,50 (wet conditions)	Matt surface		
Static coefficient of friction	ASTM C0128	-	0,86 (dry conditions) 0,57 (wet conditions)	Polished surface		

Property	Test method	Result
Suitability for food contact	NSF/ANSI Standard 51 Food equipment materials – Food / Splash zone	material is safe and suitable for food contact
Suitability for interior using	SCS EC 10.3–2014 Indoor Air Quality Performance Standard and CA 01350	no volatile organic compounds (VOC) were found in product
Health Harmless Product	Regulation EC No 1935/2004 and EU No. 10/2011	product meets conditions for indoor usage and no volatile organic compounds (VOC) were found; suitable for contact with food

QUALITY MANAGEMENT SYSTEM

Strict quality control standards are applied across the board, from raw materials to the shipment of the final product, research and testing included. One of the main competitive advantages of Technistone is a SYSTEM OF OBJECTIVE MEASURING OF COLOR SHADES. As a first engineered stone producer Technistone offers to customer sophisticated method to precisely evaluate shade of each slab to enable comfort handling and fabrication. This method is not based on human eyes, but on exact measuring computing system.

Principle: Slab surface is scanned by measuring devices to check all color shade information. A reference of each product has to be determined first. Measured information is transferred to computing system to be analysed by color evaluating software developed especially for Technistone. Each slab has own COLOR SHADE CODE consisting from three numbers. Slabs being produced in one production batch with same sequence code should have the same color shade and could be fabricated and installed together.

Technistone evaluates products with an international well-known CIELAB color system; Technistone does not use RAL, NCS or Pantone pattern books.

ALL SLABS AND TILES are inspected and sorted according to their quality by trained personnel.



Project quality

If requested for project orders, Technistone offers to our customers a program called **PROJECT QUALITY**. Quality parameters will be agreed individually according to the specific order.

If the slabs of project quality are specified to cut tiles, it always takes into account the size of tiles. On this basis, they will be offered appropriate conditions with regard to the usable surface of the slab.

Technistone project quarantee

Technistone provides a 10 year guarantee for slabs and 2 years for tiles for residential interior use: from the date of installation.

Technistone provides a 5 year guarantee for slabs and 2 years for tiles for commercial spaces use: in accordance with Technistone's General Commercial conditions for sale.

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General primary quality information for slabs

Usable area of slabs and its tolerances for first quality material

Usable area of slabs					
thickness usable area (sqm) (mm) 304 × 140 cm		305 × 142,5 cm	tolerance of usable area		
20, 30	4,26	4,35	-1% up to + 1,6%		
10, 12	4,26	4,35	-2% up to + 1,6%		





Tolerances of usable area							
cm	139	140	141	142	142,5	143	144
306	4,25	4,28	4,31	4,35	4,36	4,38	4,41
305		4,27	4,30	4,33	4,35	4,36	4,39
304		4,26	4,29	4,32	4,33	4,35	4,38
303			4,27	4,30	4,32	4,33	4,36
302			4,26	4,29	4,30	4,32	4,35
301			4,24	4,27	4,29	4,30	4,33
300				4,26	4,28	4,29	4,32
299				4,25	4,26	4,28	4,31
298					4,25	4,26	4,29

Tolerances of the slab thickness: +1,0 mm / -1,2 mm from the stated thickness of the slab.

Technistone is currently offering various format sizes for our most popular colors. Ask your Technistone sales representative for details regarding availability in your region.

QUALITY INFORMATION FOR TILES

Technistone manufactures a wide variety of slabs suitable for use as tiles. Your Technistone sales representative can help you make the best selection. Standard size tiles are: 30×30 cm, 60×60 cm and 30×60 cm; for other special formats please request Technistone representative. All formats are made from basic slab 306 x 144 cm.

Standard thicknesses are: 10 mm: 12 mm and 20 mm.

Tolerances of the tile thickness: +0,7 mm /-0,7 mm from the stated thickness of the slab.

Possibilities: beveled or non-beveled tiles.

TECHNISTONE CAREFULLY SORTS ALL TILES BY **SHADE.** All tiles are packed in paper boxes and manually put into special wooden crates for safe transport.

GREEN CERTIFICATES, REPORTS & LEED PROGRAM









Recycled content certification declares the content of recycled materials contained herein, are a minimum 20, 30, 40 and 70 % for selected products



INDOOR ADVANTAGE GOLD BUILDING MATERIALS

Indoor Advantage Gold certification meets the strictest industry standards for Indoor Air Quality



Health Product Declaration provides a full disclosure of the potential chemicals of concern in products by comparing product ingredients to a wide variety of "hazard" lists published by government authorities and scientific associations



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

Other certificates and protocols are available on request.

LEED V4 CREDIT SUMMARY

LEED (Leadership in Energy and Environmental Design) is an internationally recognized, third-party certification program developed by the USGBC to evaluate the construction and operation of high performance green buildings and communities. LEED Certification applies to buildings, not products. There are different types of LEED rating systems, and all are continuously refined. You can check the latest versions at the USGBC website. Technistone is made in the Czech Republic, contains recycled glass, mirrors and recycled filler.

TECHNISTONE SURFACE CAN CONTRIBUTE TO THE FOLLOWING CREDITS:

Credit name:	Points:	Product Contribution:
MR CREDIT: Building Product Disclosure & Optimization - Sourcing of Raw materials	Option 2: Leadership Extraction Practices (1 possible point)	Technistone surface contain form 20% to 70% recycled content by weight, Pre-Consumer recycled content varies by color; for more information contact your representative
MR CREDIT: Building Product Disclosure & Optimization - Material Ingredients	Option 1: Material Ingredient Reporting (1 possible point)	Technistone surface have a third party verified Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open standard
EQ CREDIT: Low-Emitting Materials	Option 1: Product Category Calculations (1 possible point)	Technistone has certification SCS Indoor Air Quality, which meets the California Standard Method for VOC Emissions Testing and Evaluation (Standard Method V1.1), otherwise known as CA Section 01350

LEED rating systems: BD+C (New construction, Homes) and ID+C (Commercial Interiors)

Note: Recycled content is the sum of post-consumer recycled content plus one-half the pre-consumer recycled content, based on cost. Products meeting recycled content criteria are valued at 100% of their cost for the purposes of credit achievement calculation. Points are achieved based on the specific project itself and not based on a products % recycled content. The higher the recycled content the higher value is given to the product within the project specific calculation which is factored in over the total project material cost.

> Technistone product Starlight Black contains 70% of recycled content, one of the highest values in the engineered stone industry.

For more information, please contact your representative.

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CERTIFICATES & MEMBERSHIP

A satisfied customer is the focus of Technistone. Strict quality control standards are applied across the board, from raw materials to the shipment of a final product. A sophisticated system of quality control is one of the main competitive advantages of Technistone company.



Produced with Italian Breton technology



Certificate EN ISO 9001



51 NF/ANSI Standard – material is suitable for food contact

Membership



Technistone is a member of The U.S. Green Building



Technistone is a member of The National Kitchen & Bathroom Association



Technistone is a member of The World-Wide Agglomerated Stone Manufacturers Association

Listed certifications are regularly updated. Please request a copy of any listed Technistone certifications by Technistone representative or kindly locate them at our Technistone website on the "For Partners" page, partners.technistone.com.

List of certificates

ISO 9001 Certificate

Recycled content in material 20%

Recycled content in material 20%

Recycled content in material 30%

Recycled content in material 40%

Recycled content in material 70%

Indoor Advantage Gold

Indoor Advantage Gold_Test Report

Health Product Declaration 1

Health Product Declaration 2

Health Certificate

NSF Certified Products Food and Splash Zone

Declaration of Performance Crystal

Declaration of Performance Granite

Declaration of Performance Sand

Declaration of Performance Mirrors

Declaration of Performance Marble

Declaration of Compliance_EN 15388

Safety Data Sheet Technistone

Basic characteristics according EN_Crystal-Noble

Basic characteristics according EN_Crystal-fine-grained

Basic characteristics according EN_Crystal-coarse-grained

Basic characteristics according EN_Sand

Basic characteristics according EN_Mirrors

Basic characteristics according EN_Granite

CLEANING AND MAINTENANCE OF TECHNISTONE PRODUCT

Resistance of the Technistone surface to mechanical and chemical influences is determined by the raw materials used (silicates, hardened polyester resin). The hardness of the surface (6–7 on the Mohs scale), compatibility and very low absorption make the product highly resistant to everyday influences. Even so, protecting the product's surface under the long–term exposure to abrasive impurities (this is relevant mainly for a product installed on the floors) is the reason why we recommend regular maintenance and cleaning. This ensures the stability of the surface's finish and of the aesthetic appearance of the product.

The product's surface (especially polished) will not withstand the long-term to exposure to strong alkalis and will not withstand even the short-term exposure to the Fluor hydric acid. These chemicals are contained in some cleaning agents which are available on the market. Therefore, it is important to use only products which are suited for the cleaning of engineered stone; they may not be identical to the cleaning agents for natural granites or ceramics.

Technistone kitchen countertops do not require special maintenance

and can be easily maintained by common household non-abrasive kitchen cleaning agents except chemicals named above.

Technistone tiles – all relevant information about installation and cleaning/maintenance of tiles are mentioned in Technical manual for tile installation.

Technistone prepares for our customer special **Orange cleaner** which is intended for everyday cleaning; special impregnation **TS Protection** (medium color enhance) and special range of **neutral silicones**.



Developed for Results

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TechniStone®

ENVIRONMENT We managed to introduce new solutions to extend the life of rubber moulds used in production. Also, we have undertaken activities to reduce waste disposal costs via a project of secondary use of waste ma-SUSTAINABILITY terial from the production boards (sludge from wastewater treatment plants and waste fragments) which are processed in the production of cement mixtures. BEST PRACTICES Permanent task of maintaining and increasing the efficiency of exhaust and of gassing, and by improving the efficiency of the filters preventing dust emissions. DIVERSITY ...BE INSPIRED Technistone is committed to protect the environment and in this matter we are constantly working alongside national and worldwide agencies and authorities. The company's technology works in almost a completely closed water cycle, so more than 95% of waste water from the factory is carefully purified by our own wastewater treatment plant and sent back into the production process. The company uses, to the maximum extent possible, raw materials from local sources; thereby reducing the negative impact of transportation on the environment. Similarly, all packaging materials are fully recyclable. **TechniStone**® everlasting beauty

GOB ELEGANCE ECO KARPAT STARLIGHT BRILLIANT

OLOR RANGE



NOBLE ARETI BIANCO

Production Group: Crystal Structure: vein (grain to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



NOBLE SUPREME WHITE

Production Group: Crystal Structure: vein (grain to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold





NOBLE LUSSO CHAMPAGNE

Production Group: Crystal

Structure:

vein (grain to 0,5 mm)

Certifications:



NOBLE IVORY WHITE

Production Group: Crystal Structure: vein (grain to 1 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



NOBLE OLYMPOS MIST

Production Group: Crystal Structure: vein (grain to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold





NOBLE PERLATO LUNA

Production Group: Crystal

Structure: vein (grain to 1 mm)

Certifications: NSF, Health Product Declaration, Indoor Advantage Gold

NOBLE CLOUDY ONYX

Production Group: Crystal

Structure:

vein (grain to 0,5 mm)

Certifications:



NOBLE DESIREE GREY

Production Group: Crystal Structure: vein (grain to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



NOBLE CONCRETE GREY

Production Group: Crystal Structure: vein (grain above 2,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold





NOBLE PIETRA GREY

Production Group: Crystal

Structure:

vein (grain to 0,5 mm)

Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



NOBLE ATHOS BROWN

Production Group: Crystal

Structure:

vein (grain to 1 mm)

Certifications:

NOBLE IMPERIAL GREY

Production Group: Crystal Structure: vein (grain to 1 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



NOBLE ARGOS NERO

Production Group: Crystal Structure: vein (grain to 1 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold





NOBLE SILVER NOTTE

Production Group: Crystal Structure: vein (grain to 1,2 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



GOBI BLACK

Production Group: Sand

Structure:

medium - grain (1,2 - 2,5 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 20%)

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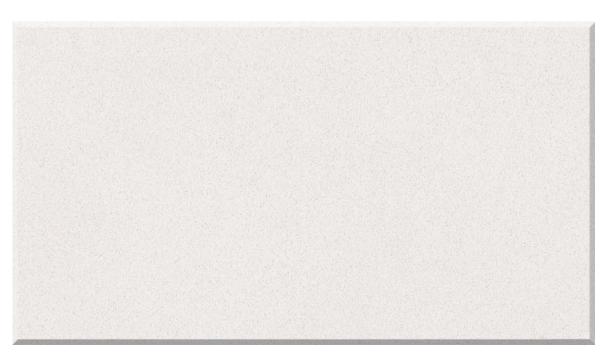
CRYSTAL ABSOLUTE WHITE

Production Group: Crystal Structure: very fine-grain (to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold



CRYSTAL POLAR WHITE

Production Group: Crystal Structure: very fine-grain (to 0,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold





CRYSTAL DIAMOND

Production Group: Crystal

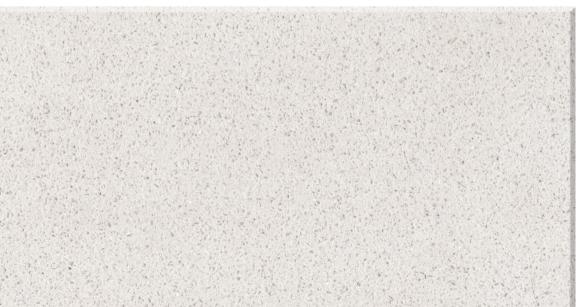
Structure:

fine - grain (0,5 - 1,2 mm)

Certifications:

NSF, Health Product Declaration,

Indoor Advantage Gold



BRILLIANT WHITE

Production Group: Starlight

Structure:

starlight (grain 0,4 - 1,4 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 20%)

STARLIGHT WHITE

Production Group: Starlight Structure: starlight (grain 1,2 - 2,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 40%)



STARLIGHT GREY

Production Group: Starlight Structure: starlight (grain above 2,5 mm) Certifications: NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)





BRILLIANT GREY

Production Group: Starlight

Structure:

starlight (grain 0,4 - 1,4 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)



Production Group: Sand

Structure:

fine- grain (0,5 - 1,2 mm)

Certifications:



STARLIGHT FRAPPE

Production Group:
Starlight
Structure:
starlight (grain above 2,5 mm)
Certifications:
NSF, Health Product Declaration,
Indoor Advantage Gold, Recycled
Content (minimum 30%)



STARLIGHT LATTE

Production Group:
Starlight
Structure:
starlight (grain above 2,5 mm)
Certifications:
NSF, Health Product Declaration,
Indoor Advantage Gold, Recycled
Content (minimum 30%)





STARLIGHT MOCCA

Production Group: Starlight

Structure:

starlight (grain above 2,5 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)



Production Group: Starlight

Structure:

starlight (grain above 2,5 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)



STARLIGHT BLACK

Production Group:
Starlight
Structure:
starlight (grain above 2,5 mm)
Certifications:
NSF, Health Product Declaration,
Indoor Advantage Gold, Recycled
Content (minimum 70%)



ELEGANCE ECO ASH

Production Group:
Sand
Structure:
coarse - grain (above 2,5 mm)
Certifications:
NSF, Health Product Declaration,
Indoor Advantage Gold, Recycled
Content (minimum 30%)





ELEGANCE ECO ZEN

Production Group:

Sand

Structure:

coarse - grain (above 2,5 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)

ELEGANCE ECO NEV

Production Group:

Sand Structure:

coarse - grain (above 2,5 mm)

Certifications:

NSF, Health Product Declaration, Indoor Advantage Gold, Recycled Content (minimum 30%)





KITCHEN BATHROOMS STATISPS TILES STATISPROJECTS

REFERENCES









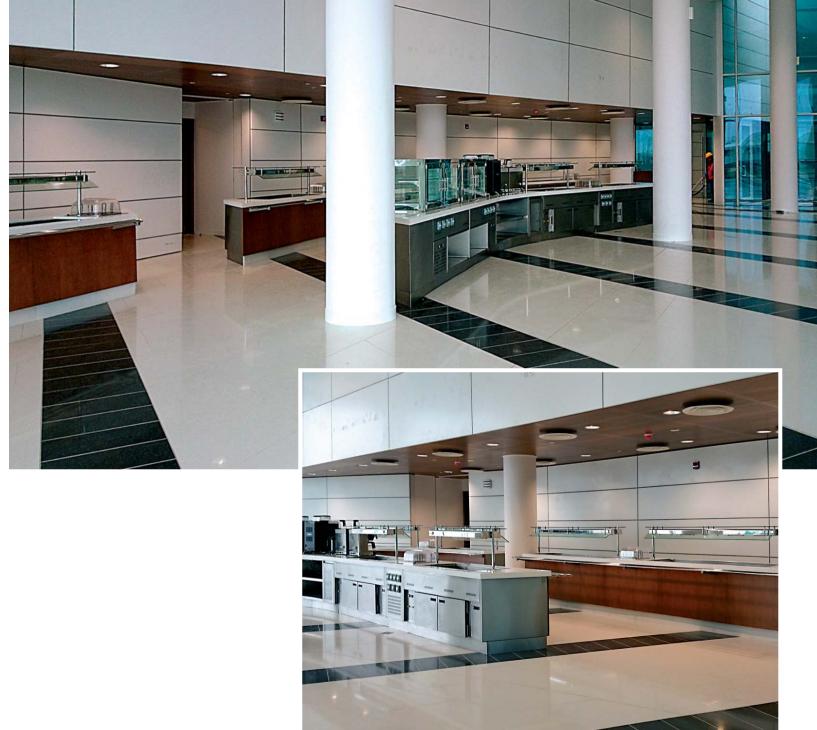




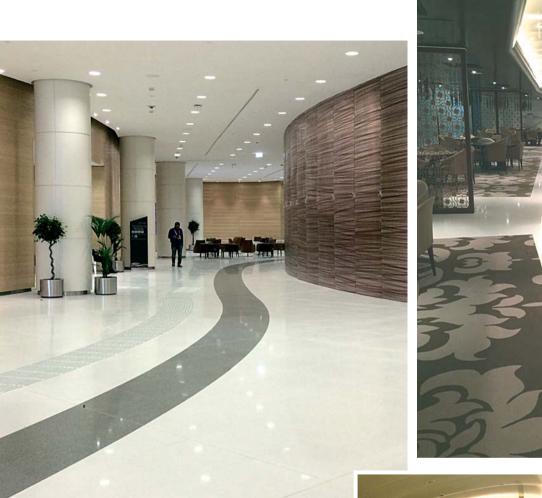






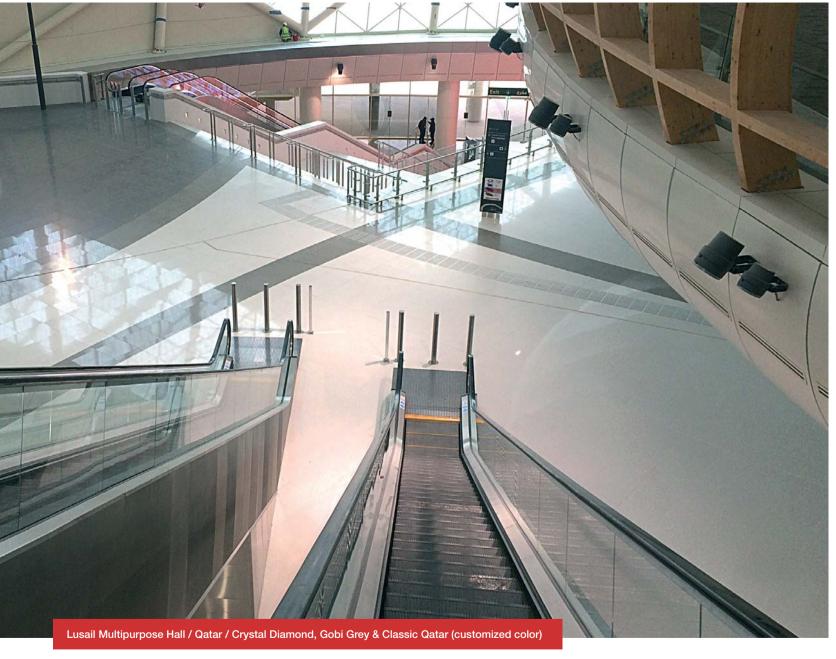


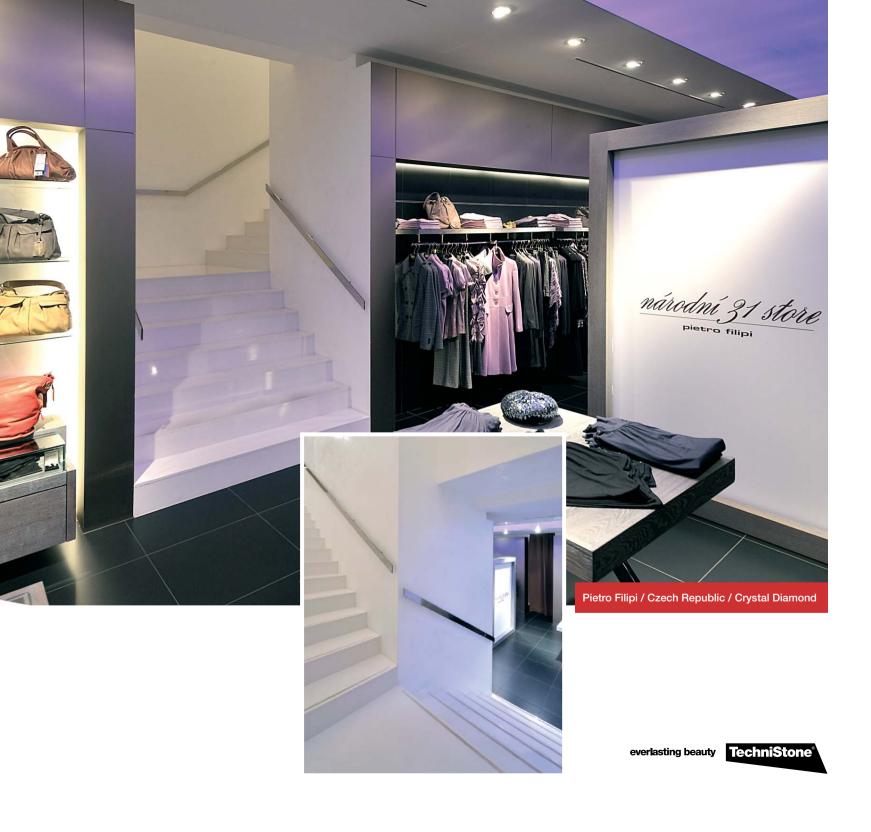
Ras Laffan Office and Canteen Building / Qatar / Nevada Qatar & Taurus Qatar (customized color)



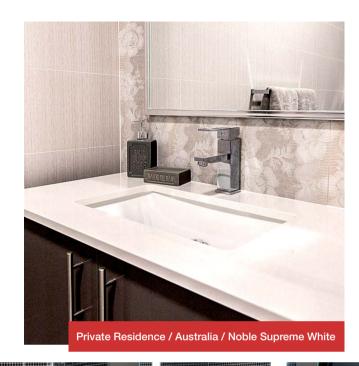




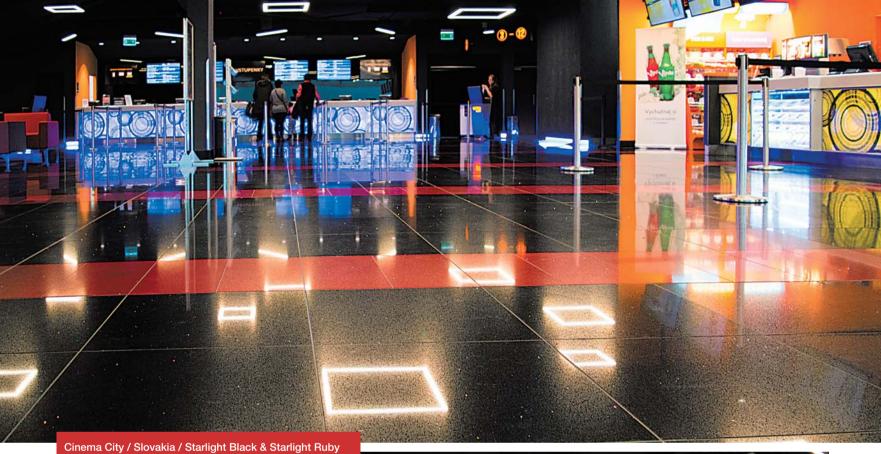




















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Other Technistone Reference projects locate at our Technistone website on the "Showroom" page, www.technistone.com/en/showroom.

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WORLDCRATES EXPORT BOXES SHIPMENT IN TIME CONTINENTS



PHONE MAILING FACEBOOK LINKING WEBSITE INSTAGRAM NEWSLETTERS YOUTUBE BLOG TWITTER





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SEE YOU AT OUR RESIDENCE, HRADEC KRALOVE, CZECH REPUBLIC







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The city of Hradec Kralove with its rich, deep and recent history, is a modern and dynamic metropolis within northeastern Bohemia. With its nearly one hundred thousand inhabitants it holds the 9th position for cities in the Czech Republic. It is a statutory city, a residence of central administrative offices for diverse industries.

The city is well-known for its medical and pharmaceutical complex, it is home of several universities - University of Hradec Kralove, Pharmaceutical and Medical Faculty of Charles University, Faculty of Military Health Sciences, University of Defense, and consultation centers at other universities - eg. Metropolitan University Prague, Czech Agricultural University and others.

Hradec Kralove also contains major cultural institutions - drama and Puppet Theater, museum, modern art gallery, library, planetarium and musical ensembles. There are top quality facilities for competitive sports and for public access and many high-end medical facilities.

Thanks to its location, it has a series of convenient transport links. A Highway connects us directly with the capital Prague (100 kilometers) and with the states of Central and Western Europe. The city has a strong and reliable rail system with links to all areas of Europe. The local airport has the status of national public and non-public international airport.



Thanks to quality solutions in urban transport, housing, public facilities and clean environment with its connection to the surrounding nature, it has long been recognized as one of the best places for living and doing business in the Czech Republic.

