

HÄFELE

www.hafeleindia.com



DEKTON

The All Purpose Surface



Introduction

Dear Readers,

Häfele has pioneered the way interior fittings are sold across the globe for many years now. Being a German company our foremost concern has always been to offer our customers products that are at the cutting edge of functionality and design; and backed by the highest standards in Customer Service. In our markets, we are increasingly being recognized as a one-stop interior specialist brand that can enable functionality for any interior design through a holistic solution offering, be it door hardware, furniture or kitchen fittings, sliding systems, built-in appliances, bathroom solutions, furniture lighting and interior surfaces.

Keeping this proposition in mind, Häfele has thoughtfully put together a comprehensive range of surfaces suited for various interior applications ranging from kitchen counter-tops, wall claddings, bathroom backsplashes and much more. This exclusive range brings to you the most superior technologies in surface textures and designs, through world-renowned brands that come with years of tradition, expertise and market understanding.

Häfele brings to you one such brand called Dekton®, from Spain, that offers world's first ultra-compact surfaces. These surfaces are made up of sophisticated

raw materials that are generally used in the production of glass, porcelain and quartz surfaces. Dekton® with its large format slabs has the ability to fit into and redefine a multitude of applications - flooring, cladding, and facades for both inside and outdoors.

Dekton® surfaces are designed to be the toughest and most durable products in the market today; capable of resisting almost everything that is thrown at them from scratches to stains while also surviving an exposure to the most extreme weather conditions. With a large offering in colour and texture options, Dekton® just might be the architects' and designers' dream solution.

So come and experience these elegant miracles at any of our Design Showrooms for a better understanding and detailed dialogue. We are taking all the necessary precautions at our end to make your visit a safe and fruitful experience.

Enjoy!

Jürgen Wolf
Managing Director
Häfele South Asia.

Hafele

Reassuring Expertise



"For over 9 decades, we've been helping people make more of their homes.

Established in Germany, and now operating worldwide, we specialise in the fittings, hardware and systems that improve the way your home works. So when you choose our products as part of your new or reformed home, you know you're getting the benefit of extensive knowledge and decades of experience.

And we're still a family business, owned and managed by family members who really care about the products and service we provide. You can rely on our commitment to the

highest standards of quality and reliability, founded on a long tradition of German engineering where attention to detail is second nature.

All our home improvement ideas are built to last – day in, day out – we want you to get the very best from every corner of your home, for many years to come."

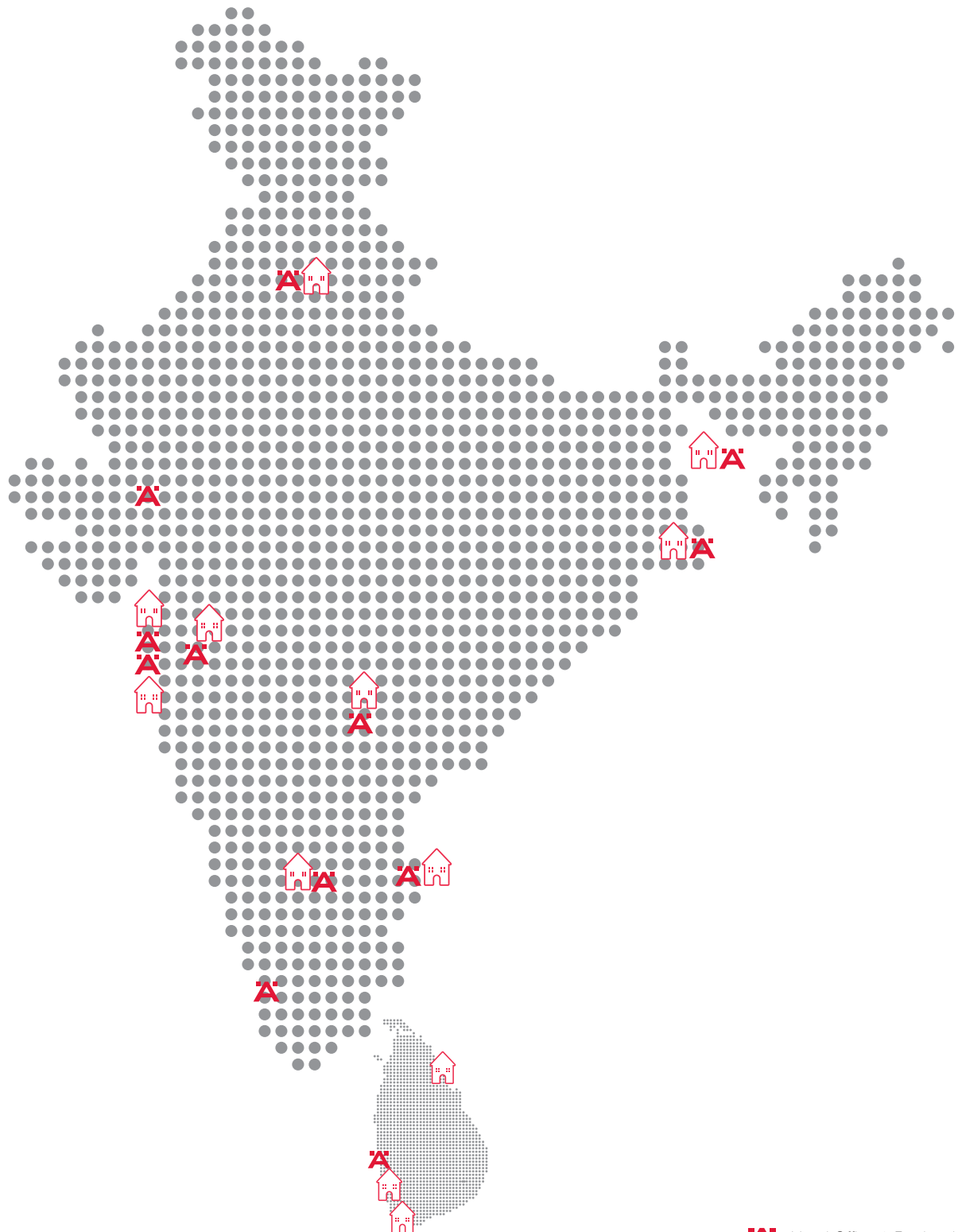
Häfele Worldwide



With its origin in 1923 in a small town named 'Nagold' from the Swabian region of Germany that nurses a passion for hardware technology, it is no surprise that Häfele has lived up to its roots through a successful presence in the architectural and furniture hardware industry for over 9 decades now. Today, Häfele's worldwide penetration includes 38 subsidiaries across Europe, America, Asia, Australia and New Zealand. With these subsidiaries and numerous other sales organisations, Häfele operates in over 150 countries. The Häfele headquarters, 4 manufacturing units and 10 sales offices are located within Germany; while 1 manufacturing unit is located at Budapest, Hungary. The company also owns one of the largest and most sophisticated warehouses in its home country. The Häfele worldwide workforce is empowered by a base of over 8100 employees.

The group services over 150,000 customers across the globe through its extensive range of hardware products and a comprehensive logistics system. In addition to this, Häfele also provides consultative services to its customers, educating and advising them about buying the correct hardware as per their requirements. With this level of market penetration and ability to handle worldwide demand, it comes as no surprise that the company is an authority in the segment of home interior solutions; what is pleasantly surprising, though, is that in spite of its size, Häfele still remains a family owned and run business with a unique, friendly and value-centric work culture which is strongly followed among all its subsidiaries.

Hafele India



 Head Office & Regional Offices

 Hafele Design Showrooms



Häfele India is a wholly-owned subsidiary of the Häfele Global network and has been operating in India since 2003 under the leadership of Mr. Jürgen Wolf (Managing Director). The ability of the company to understand the diverse Indian market has made it an authority in the field of architectural hardware, furniture and kitchen fittings and accessories. The company also has a strong presence in synergized product categories namely Home Appliances, Furniture Lighting, Sanitary and Surfaces catering to the focused demand from these industries.

The subsidiary has a strong nation-wide presence with offices in Mumbai, Pune, Ahmedabad, Bangalore, Chennai, Hyderabad, Delhi, Kolkata and Cochin. It has full-scale operations in Sri Lanka and Bangladesh with Regional offices and Design Showrooms in both the countries; and has also spread its operations to other regions of South Asia including Nepal, Bhutan and Maldives.

Häfele's design showrooms are hubs of international home interior trends and cutting edge designs presented in a world-class environment, where customers can see home solutions in their inherent applications. These showrooms function as a one-stop-shop for all home interior and improvement needs - from providing in-depth technical advice to kitchen and wardrobe designing services through a team of experts stationed at the showroom.

Häfele India services its customers with a base of over 1300 employees, a well-networked Franchise base of over 130 shops along with over 1000 dealers situated across South Asia. The subsidiary has a sophisticated Logistics centre in Mumbai along with distribution centres in Delhi, Bangalore, Kolkata and Colombo respectively.



WHAT IS DEKTON ?

WHAT IS DEKTON?

DEKTON is a new and unique surface created through the innovative combination of 28 natural minerals found in nature and its exclusive ULTRA COMPACTING TECHNOLOGY.

This technology replicates and enhances the metamorphic changes that natural stone undergoes over a millennia through exposure to high pressure and high temperature.

This evolution represents a technological and industrial leap capable of generating a revolutionary material and leading product with virtually ZERO porosity and non-existence of any micro flaws that cause weakness.

DEKTON

The product's patent was requested in 2012 and currently a PCT patent has been requested. Owing to its properties, DEKTON® is a unique material around the world, as it boasts the highest quality technical characteristics among the different existing construction surfaces on the market.

Manufacturing Process

The manufacturing process includes several phases. It is explained below phase-wise.

Receipt and preparation of raw material: at the very start of the process, the raw materials are checked for quality and suitability. All raw materials are stored separately to prevent cross-contamination. They are then transported by a conveyor belt system, from the storage areas to a series of hoppers or purification systems exclusively designed for this process.

The raw materials used for DEKTON® have been very carefully chosen, paying particular attention to the physical and chemical parameters. They are supplied from all around the world and in some cases, demand a complex logistics system to prevent contamination or loss in quality.

Milling and homogenization: the DEKTON® formula is transported from the hoppers or purification systems to a wet grinding process, in which, the different raw materials are mixed in a certain ratio and are ground to a specific particle size. The particle size completely determines the speed and course of the chemical reaction that gives rise to DEKTON®. It also conditions the final properties of the product. This mixture is stored separately before use, following a pre-determined stabilisation period.

Pigmentation: the pigmentation process is made up of a complex system of mixers, diluters and stirrers. This system is capable of mixing, depending on the colour/ finish, inorganic pigments with the rest of the DEKTON® formula. These pigments also form part of the chemical reaction that gives rise to DEKTON®, thus the quality control of its chemical composition is thorough and rigorous.

Atomisation: The already coloured DEKTON® formula is dried by atomisation until a specific size,

grain form and a specific humidity are achieved. The different powder products obtained are stored in separate silos. In this case, the humidity controls the fluidity of these small particles, allowing them to be deposited in the different receptacles that supply some of the subsequent decoration systems. They flow between the channels that supply the other decoration systems or that allow their movement during mixing systems.

Decoration systems: using several unique mechanisms for their design and function, these small particles generated in the previous section, are carefully positioned on different locations on a belt, creating a continuous slab. The decoration mechanisms are what create the different aesthetic effects.

These effects can be produced throughout the thickness of the slab or just on the surface. In total, and in the first phase of the production process, there are 16 different decorative systems that can work independently or simultaneously, or even in groups, resulting in an incredible design versatility.

Shaping system: the continuous slab is separated into several sections that later will create the finished slab, and that will be subject to an extreme ultra-compaction process. To do so, a unique press like no other in the world has been designed for its special dimensions and its capacity to compact.

This process gives the slabs sufficient mechanical resistance to be able to move onto the next section, which is the final thermal process. Before reaching this last section, the ultra-compact slabs pass through different intermediary steps to assist the following steps or to include the aesthetic/ decorative content of the piece in some cases.

Thermal process: during this process, the finished slab is given its final physical, chemical

and aesthetic properties. This process includes the application of high temperatures so that the different coloured particles react following a pre-established reaction path.

Throughout this process, the raw material and initial pigments are transformed into several intermediary composites. These composites, through the application of heat, are controlled so that they react and so that they can follow the correct synthesis path.

The final result is DEKTON® with a useful surface area of approximately 3200 x 1440 mm and diverse thicknesses that vary from 4 to 20 mm, depending on the application.

Chemical Composition

This product does not contain resins or organic additives and therefore polymerisation reactions are not used for its production. The chemical composition of the product is fully inorganic.

Different formulas are used for DEKTON®, depending on the type of product required; this means that the final chemical composition can fluctuate without the physical or chemical properties being affected.

One example of the final chemical composition

of DEKTON® is as follows: aluminium silicates, amorphous silica, crystalline silica, zircon and inorganic pigments. The content of crystalline silica in all colours and formula will always be below 11% in weight. The product is classified with the TARIC tariff code: 6914.90.00.90.

Nevertheless in accordance with its technical characteristics, it complies with group Blaof standard EN 14411:2006, such as tiles both for indoor and outdoor flooring applications.

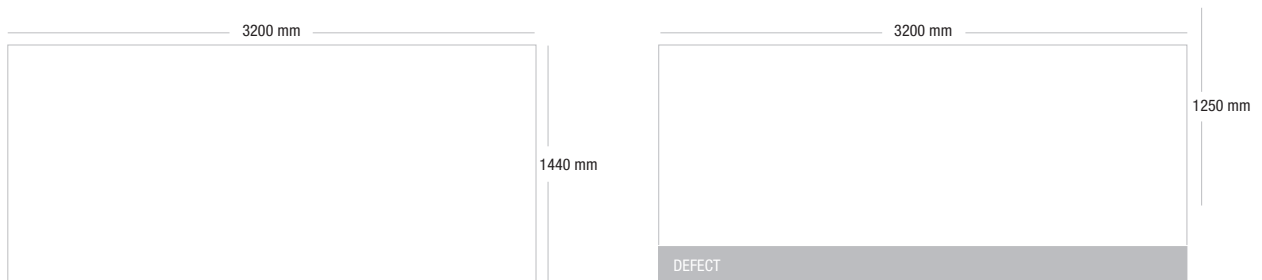
Dimensions

The DEKTON® slab has a nominal dimension of 3200 x 1440 mm. Depending on the type of colour and formula used to manufacture DEKTON®, the useful surface area may be larger than the above dimensions. In the event of a defect appearing, the surface area of the slab decreases in sufficient measure to allow the defect to be eliminated from

what is considered the useful surface area. In other words, the area affected by the defect is subtracted, as shown in the example. The DEKTON® slabs are marketed in different thicknesses: 4 to 20 mm.

The maximum deviation from the nominal value is $\pm 2\%$. As an example, for a 20 mm thick slab, the

maximum variation that the slab may have is ± 0.4 mm.



Textures / Finishes

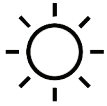
The DEKTON® colours may have different textures such as Smooth matte, Textured matte (wood, slate / limestone) and Polished. Dekton Grip, our finish for wet zones, is also available.

The texture is determined by the name of the colour. Not all the textures are available in all the colours.

COLLECTION	TEXTURE	COLOURS
SOLID	Smooth matte	DOMOOS, ZENITH
	Textured matte	SIRIUS
NATURAL	Smooth matte	AURA 15, ENTZO, KAIROS, DANAE, KELYA, VEGHA, SIROCCO, KIRA, BEDROCK, LAURENT, PORTUM, VERA, ETER, AERIS, SASEA, REM
	Textured matte	BROMO
TECH	Smooth matte	STRATO, KERANIUM, KEON
INDUSTRIAL	Smooth matte	TRILIUM, LAOS, MILAR, SOKE
CHROMICA	Smooth matte	BALTIC, FEROE
LIQUID	Smooth matte	SHELL, SKY
XGLOSS	Polished	VIENNA

PORSCHE DESIGN





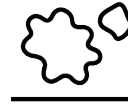
High UV Resistance

Dekton is highly resistant to ultra violet (UV) light and will not fade or degrade over time making it perfect for both indoor and outdoor applications.



Highly Scratch – resistant

Dekton is the most scratch resistant surface on the market and while the slip of a knife won't damage Dekton, cutting boards are still recommended to protect your household utensils.



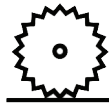
Resistant to stains

While other surfaces are stain resistant, Dekton is completely stain proof. Even the most stubborn stains like wine, coffee, markers and rust can easily be removed from the surface. Since Dekton has extremely low porosity and contains no resins, it is chemically resistant to drips or splashes of common household chemicals like bleach and drain cleaners. Even oven degreasers won't harm Dekton.



High resistance to fire and heat

Dekton withstands high temperatures without burning, scorching or cracking. Hot pots and appliances like crock pots can be placed directly on the surface with no worry of damage.



Resistant to abrasion

Dekton is even more resistant to abrasion than granite making it the ideal surface for commercial applications and high traffic areas such as flooring. While other surfaces show wear overtime, Dekton finish will last for the life of the product and will never need to be re-surfaced or re-finished.



Resistant to ice & thawing

Dekton's low coefficient of thermal expansion makes it thermal shock proof from both extreme heat and extreme cold. Its natural resistance to ice and thawing makes it perfect to use in even the coldest environments.



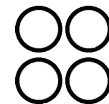
High mechanical resistance

With over 5 times the flexural strength of granite, Dekton can be installed in thinner material over greater spans allowing for up to a 12 inch unsupported overhang on worktops, islands and bar tops. Dekton's high compressive strength makes it an ideal material for walkways, pavers or driveways.



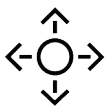
Non – porous

Dekton is non porous and never needs to be sealed. It naturally prevents liquids and gases from penetrating the surface making it a low maintenance surface that is easier to clean.



Colour stability

The manufacturing process used to make Dekton allows us to control the pigmentation and decoration of the material giving better colour consistency from slab to slab and resulting in a long lasting product that will not fade overtime. The surface you install today will maintain the same new appearance for the life of the product.



Dimensional stability

Dekton is very consistent in both dimension and thickness throughout the slab which minimizes the need for field corrections and allows for easy installation.



Waterproof

Dekton is highly water resistant.



CONTENTS

INTRODUCTION

PAGE

1-15

LARGE SIZE FLOORING

PAGE

16-35

STEPS & RISERS

PAGE

36-39

WALL CLADDING

PAGE

40-49

VENTILATED FAÇADES

PAGE

50-61

SWIMMING POOLS

PAGE

62-69

OUTDOOR COUNTERTOPS

PAGE

70-75

FOOD SERVICES

PAGE

76-89

BAR TOPS

PAGE

90-101

INDOOR COUNTERTOPS

PAGE

102-112

TECHNICAL INFORMATION

PAGE

113-118

DEKTON COLOURS

PAGE

119-124

Large Size Flooring



Resistant to
Abrasion



Superior Mechanical
Resistance



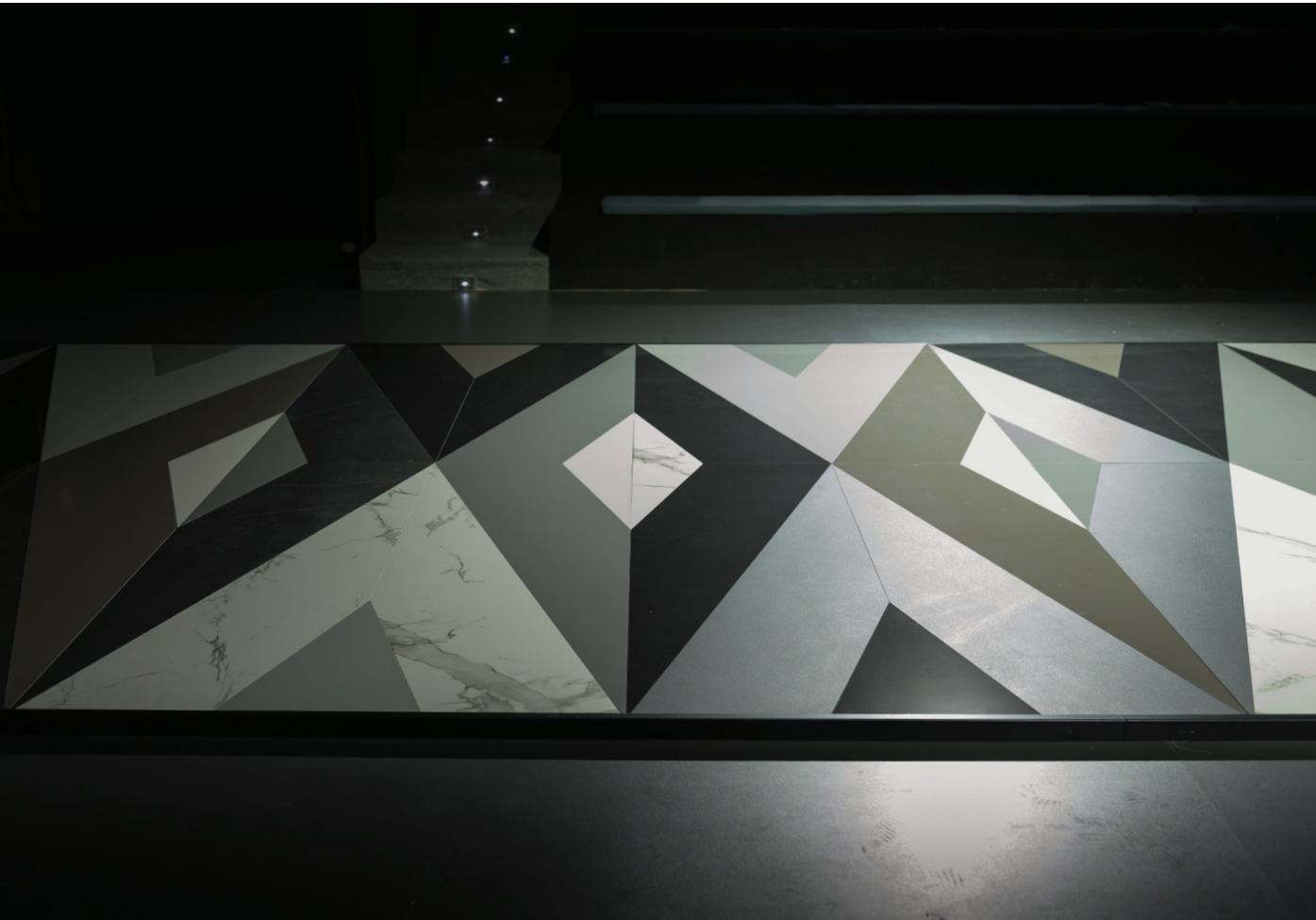
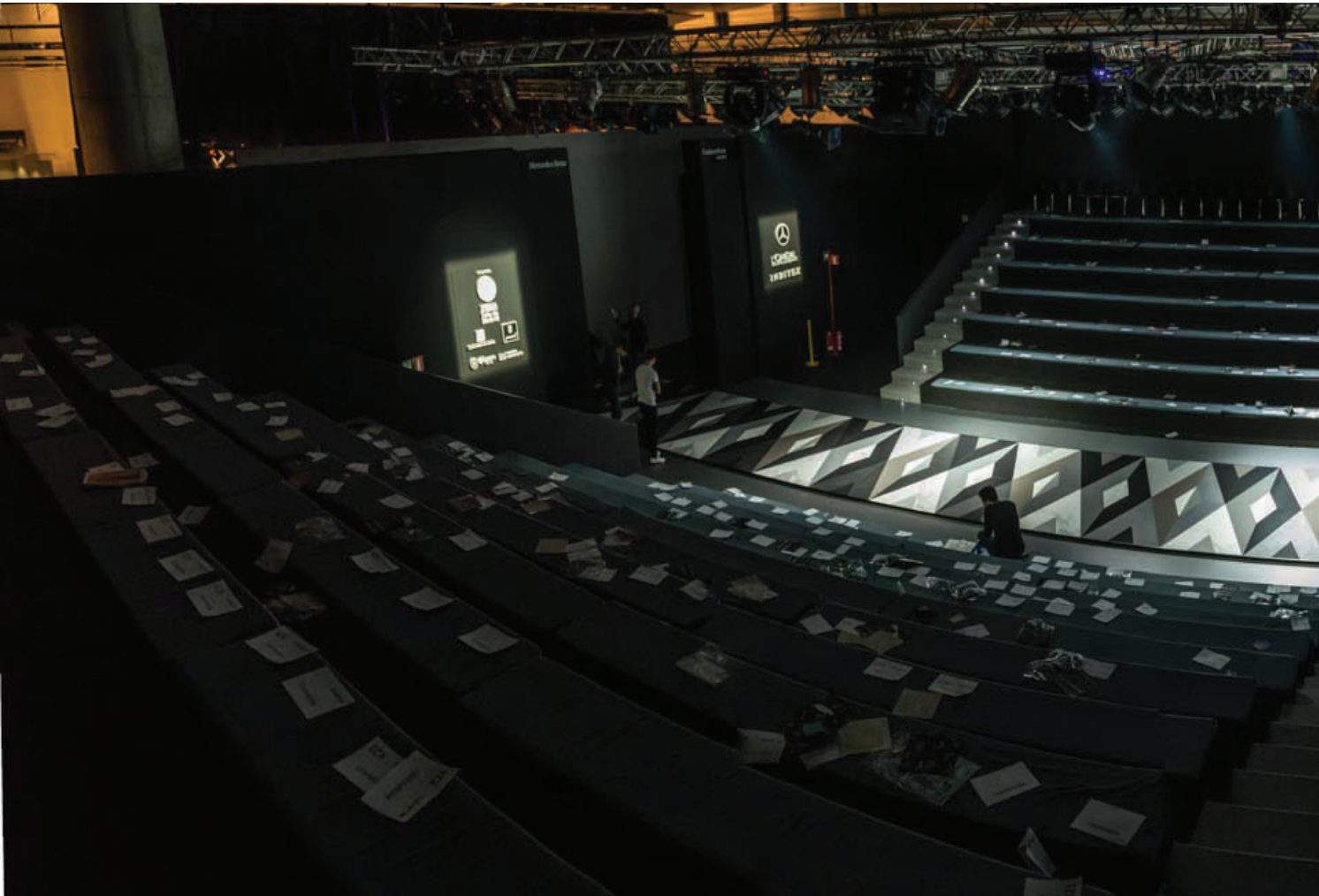
Dimensional
Stability

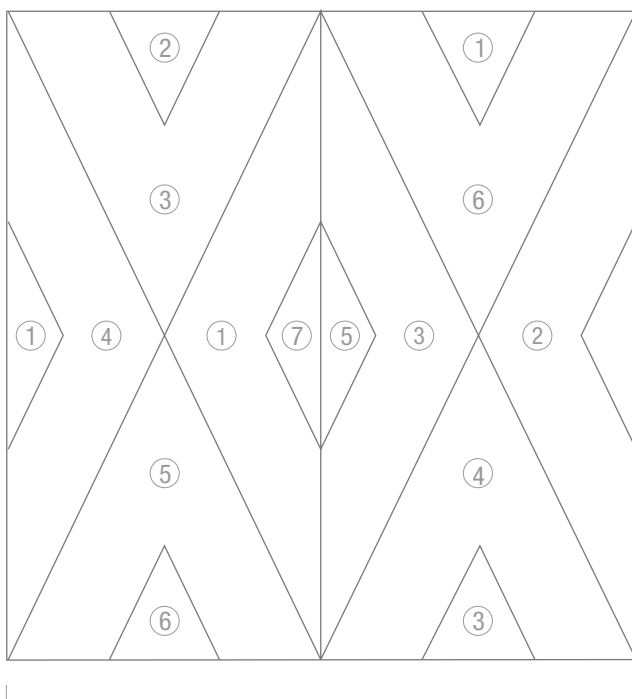
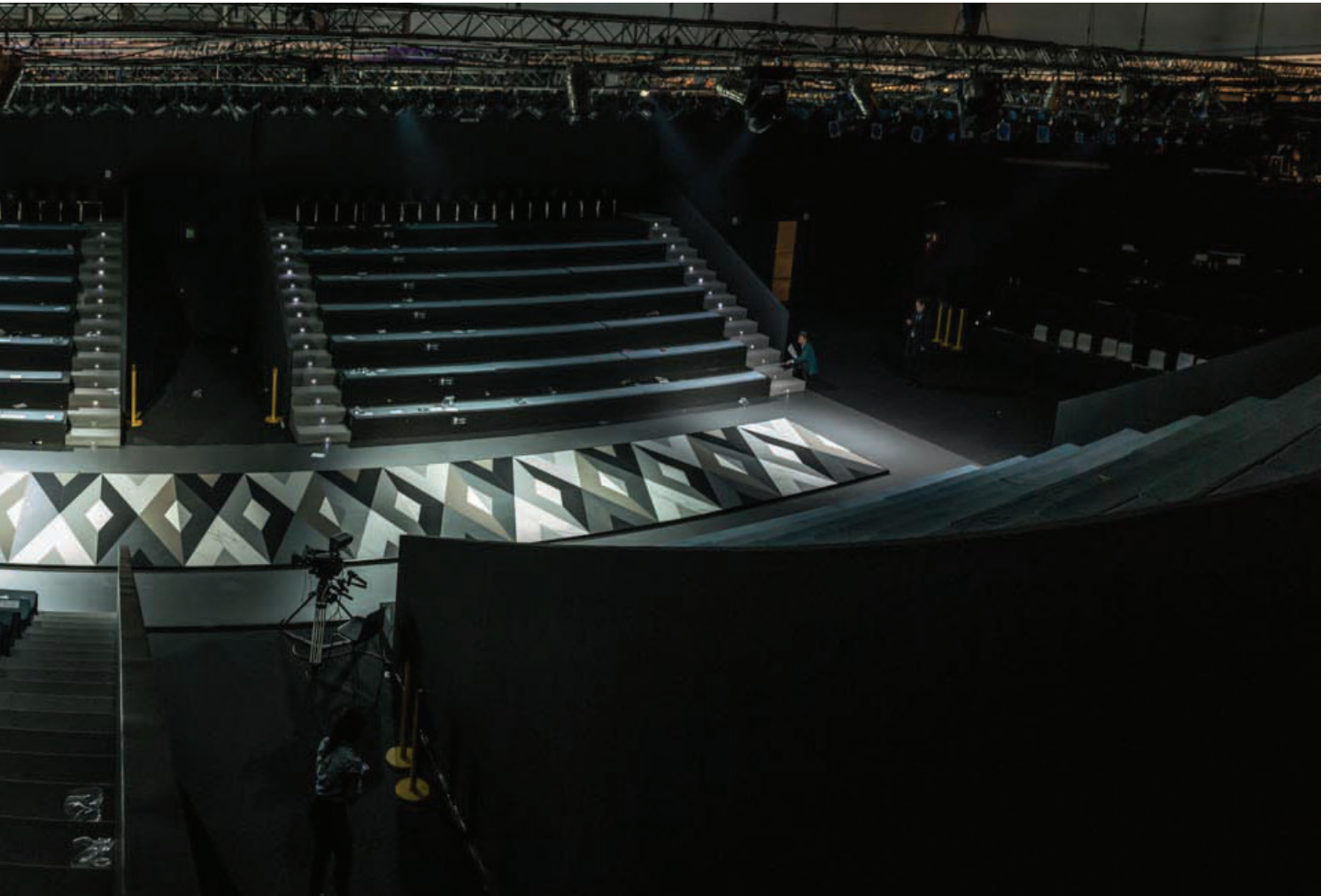


Resistant to
Stains









Repetition Pattern (x13)

- ① Blaze Solid
- ② Lumina Solid
- ③ Negro Solid
- ④ Kelya Natural
- ⑤ Aura Natural
- ⑥ Splendor Solid
- ⑦ Halo Solid

Why does a floor have to be square or rectangular? Because the industry has imposed it. Why only one or two colors? Why only polished or matte?

Rules have changed. We now have everything that our imagination dares to create, at our fingertips.



White House | Haifa (Israel) | Dekton Aura 15 Bookmatch







Spain Pavilion Expo Milano | Customised Dekton Zenith using inkjet printing technology





— GİRİŞ QADAĞANDIR / NO ENTRANCE

Kustar
CAFE



Dressing Room | Dekton Aura 15 | © Architect Carico Dumont - Jomar Bragança









Dekton Feroe | Large size flooring



Cajamar | Dekton Danae | © Fernando Alda



Aeris | Large Size Flooring



Steps & Risers



Fireproof
Material



Superior Mechanical
Resistance

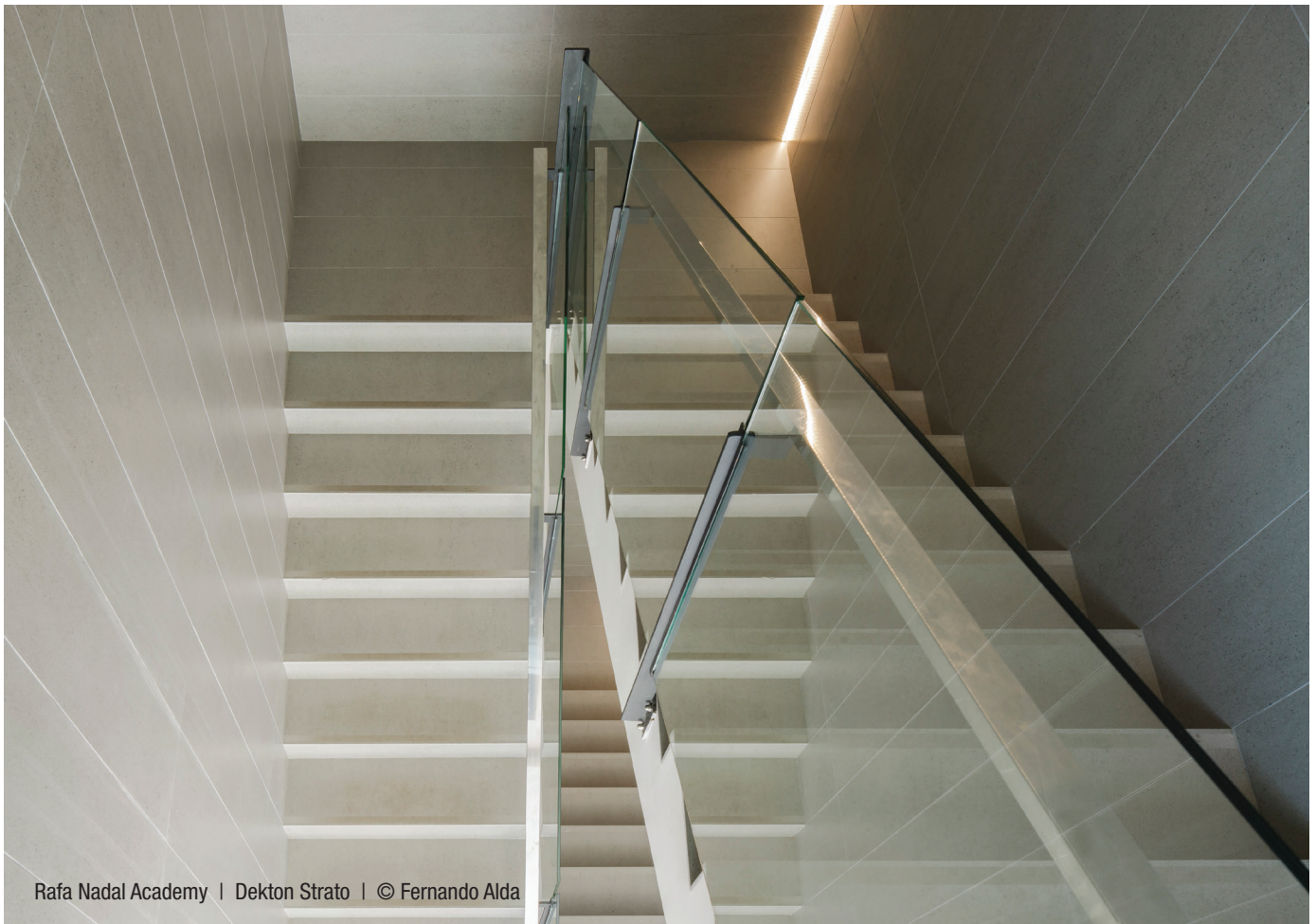


Dimensional
Stability

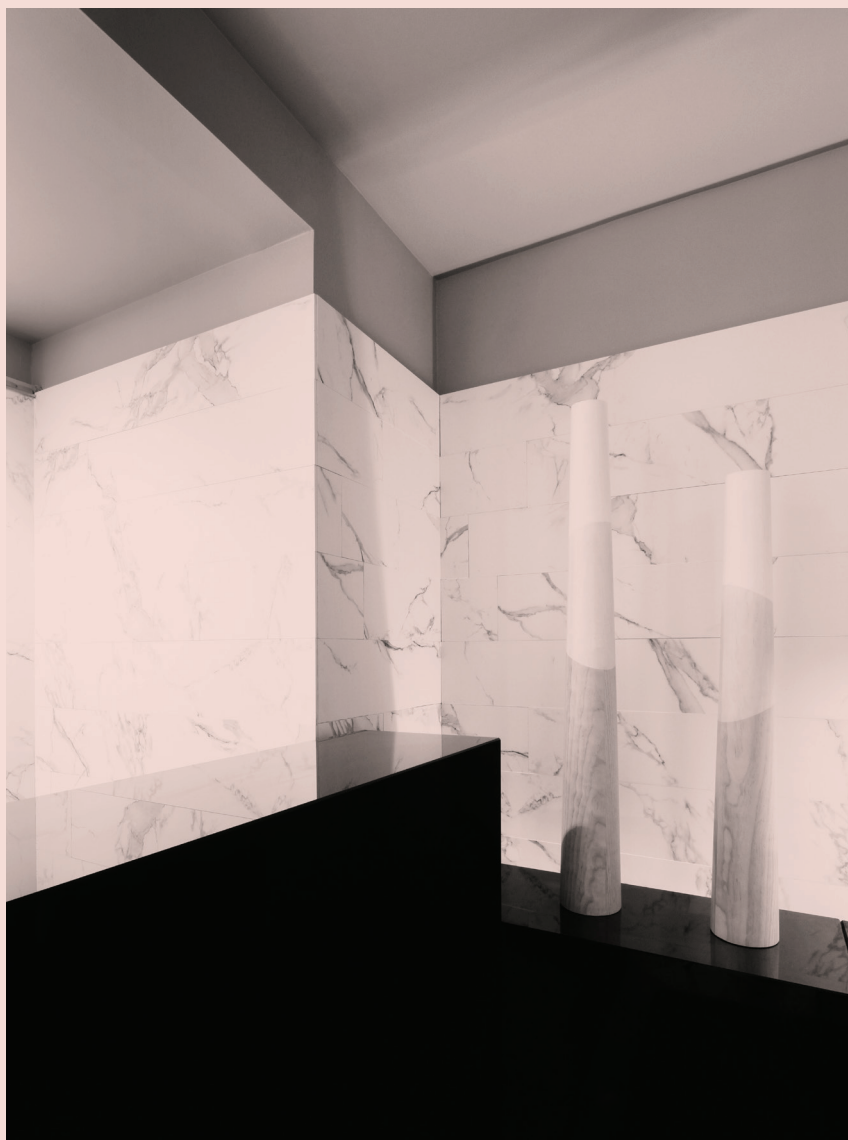


Scratch
Resistant





Wall Cladding



Dimensional
Stability



Fireproof
Material



Superior Mechanical
Resistance



Low Water
Absorption



wanderlust
(n.) a strong
desire or urge
to wander or
travel and
explore the
world.





Artefacto Miami 2016 | Dekton Aura 15 Bookmatch | © Fabio Morozini - Fran Parente



Liquid Sky | Wall Cladding



Balinese Garden - Salone Mobile Milano 2016 | Dekton Blanc Concrete | © Interior Design: Cecconi Simone



Henderson Municipal Swimming Pool | Dekton Entzo | © Architect Barry McCallum



Uterqüe | Barcelona (Spain) | Dekton Danae





Ventilated Façades



Superior Mechanical
Resistance



Highly UV
Resistant



Resistance to Freezing
and Thawing



Dimensional
Stability





Ultracompact surfaces with 8 mm thickness are ideal for, probably the most demanding architectural application: the independent skin of buildings.

Only this sort of material can offer as many solutions using different certified anchoring systems, such as continuous grooved edges, undercut anchors or dovetail-shaped diagonal grooves.

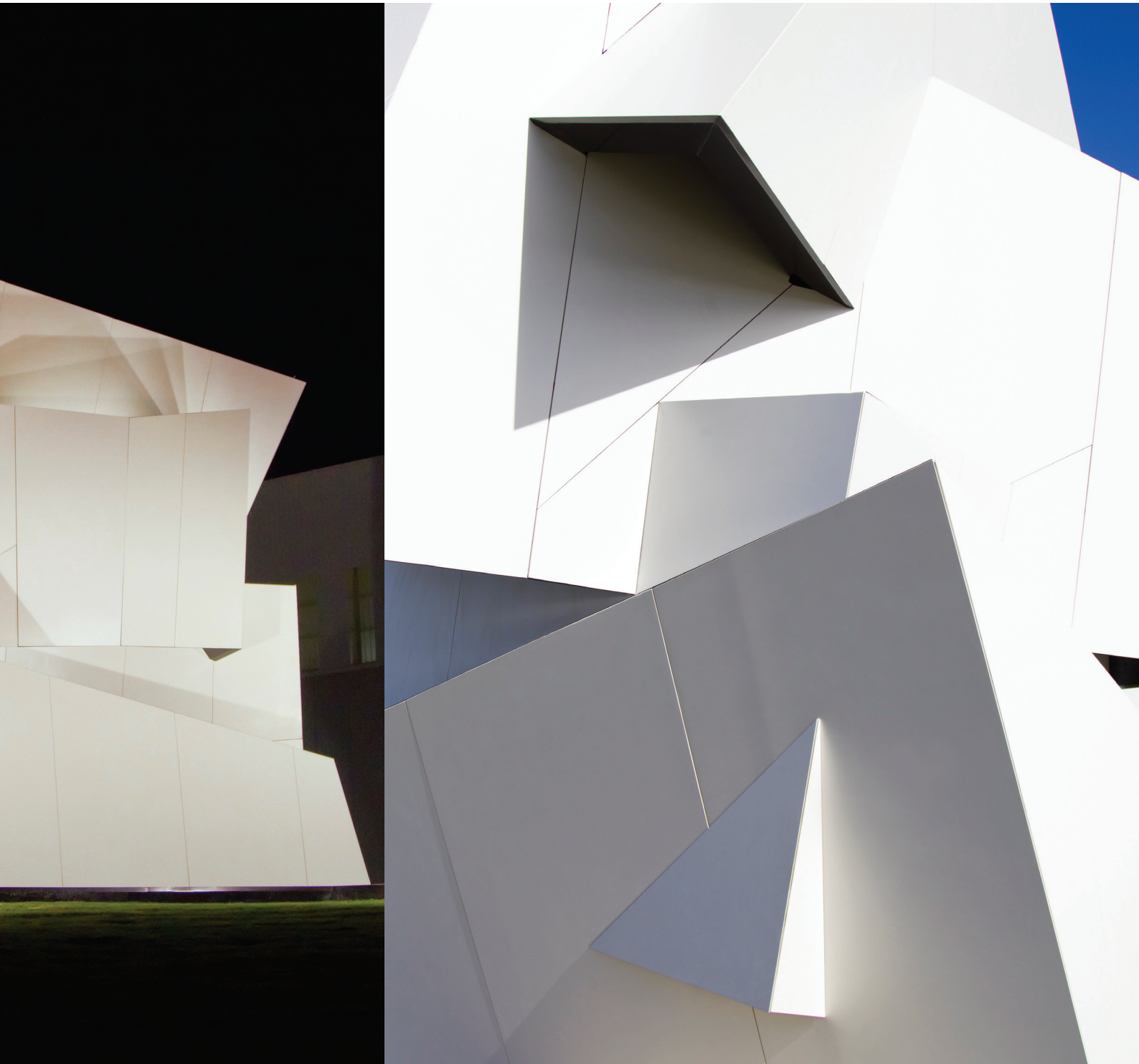
The project is thus released from formal limitations and can incorporate creative shapes, with pieces that can be up to 3m long and have slim lineal designs.







Libeskind Sculpture | Almeria (Spain) | Dekton Zenith











Swimming Pools



Resistant
to Stains



High Resistance
to Hydrolysis



Low Water
Absorption



Dimensional
Stability



Lewisville | Dallas (USA) | Dekton Danae









Rafa Nadal Academy | Dekton Trilium | © Fernando Alda



Hillcrest | California (USA) | Dekton Zenith



Swimming Pool | Málaga (Spain) | Dekton Danae

Outdoor Countertops



Highly UV
Resistant



Resistance to Freezing
and Thawing



Scratch
Resistant



Maximum Resistance
to Heat

Note: Recommended thickness for Outdoor Countertop is 12mm and above.



Private House | Spain | Dekton Kelya





Hagag | Kfar Shmaryahu (Israel) | Dekton Zenith



Pitch Concept | USA | Dekton Aura 15



Kitchen | Virginia (USA) | Dekton Keranium

When designing an outdoor surface we need to take gravity into account: everything floating in the air will end up falling onto it. And it can be unused for weeks and months.

Is the material strong enough to face a chemical cleaning and return to its original conditions? The decision will depend on this answer: Has the material ever been damaged by snow or frost? Cheap becomes expensive when adding up the regular maintenance.

Food Services



Maximum Resistance
to Heat



Fireproof
Material



Scratch
Resistant



Resistant to
Abrasion

Note: Recommended slab thickness for Food Counter top is 12mm and above



Dani García Restaurant | Marbella (Spain) | Dekton Zenith Blackbox









D'Stage Restaurant | Madrid (Spain) | Dekton Keranium

Industrial kitchen and buffet services are highly-demanding applications where few materials are allowed to enter. Large formats, the amount of holes, the presence of cold

and hot items and the required hygiene demanded from an intense and daily use create a harsh environment for almost every material... but not for an ultracompact surface.



Diverxo Restaurant | Madrid (España) | Dekton Domoos







Casa Cor | Dekton Aura 15 | © Michel Alban - Jônatas Padilha



Pane e Vino, Italian Restaurant | Dekton Sirius | © Interior Designer Camilla Lapucci



The Plaza Hotel 5* | Tirana (Albania) | Dekton Aura 15



Bar Tops



Resistant to
Stains



Low Water
Absorption



Superior Mechanical
Resistance



Resistant to
Abrasion

Note: Recommended Slab Thickness for Bar Top is 12mm and above











Okami Restaurant | Málaga (Spain) | Dekton Domoos





Hospital Copa D'or | Rio de Janeiro (Brazil) | Dekton Aura 15 Bookmatch | © André Nazareth







Indoor Countertops



Maximum Resistance
to Heat



Low Water
Absorption



Scratch
Resistant



Resistant
to Stains

Note: Recommended Slab thickness for Indoor countertops is 12mm and above



Dekton Baltic | Indoor Countertop





Liquid Shell | Indoor Countertop





Dekton Portum | Indoor Countertop



Casa Cor | Dekton Entzo | © Michel Alban - Jônatas Padilha



Laosl Indoor Countertop



Rem | Indoor Countertop







There have always been worktops, but functional kitchens go above and beyond. Horizontal workplaces, walls, ceilings and floors are all attacked by grease and smoke. Protection with design is only available within materials that offer top

mechanical properties (for example, bending resistance) and zero porosity regardless of the texture (for an effortless cleaning with any chemical product).

TECHNICAL INFORMATION

DEKTON TECHNICAL INFORMATION

TEST	STANDARD	DETERMINATION	Units	Family I	Family II	Family III	Family IV
Flexural and bending strength	UNE EN ISO 10.545-4	Mean flexural strength	N/mm ²	60	67	59	60
		Mean tensile strength	N	2548	2.313	2.356	2.568
		Mean breaking strength	N	14.966	13.559	13.818	15.620
Water absorption, open porosity and densities	UNE EN ISO 10.545-3	Water absorption by boiling	%	0	0,1	0,1	0,1
		Water absorption by vacuum	%	0,1	0,1	0,1	0,1
		Open porosity	%	0,2	0,2	0,2	0,2
		Apparent relative density	g/cm ³	2,51	2,61	2,53	2,44
		Apparent density	g/cm ³	2,50	2,61	2,52	2,44
Resistance to deep abrasion	UNE EN ISO 10.545-6	Wear volume	mm ³	125	106	115	119
Determination of dimensions and surface quality	UNE EN ISO 10.545-2	Length and width	%	0,11/-0,18	0,04/-0,08	0,04/-0,04	0,02/-0,02
		Thickness	%	0,50/-0,50	4,95/-2,20	0,53/-0,53	-1
		Straightness of sides	%	0,01/-0,01	0,03/-0,03	0,01/-0,03	0,02/-0,02
		Orthogonality	%	0,07/-0,16	0,04/-0,09	0,21/-0,21	0,08/-0,08
		Lateral curvature	%	0,04/-0,08	-0,06	-0,06	-0,07
		Central curvature	%	0,06/-0,06	0,02/-0,04	0,02/-0,04	0,02/-0,02
		Warping	%	-0,11	-0,07	-0,06	-0,04
		Surface appearance (Tile defect)	%	100	100	100	100
Determination of the impact strength	UNE EN ISO 10.545-5	Mean coefficient of restitution	-	0,85	0,85	0,85	0,92
Determination of linear thermal expansion	UNE EN ISO 10.545-8	Expansion between 30-100°C	°C ⁻¹	6,5·10 ⁻⁶	5,1·10 ⁻⁶	6,3·10 ⁻⁶	5,8·10 ⁻⁶
Determination of resistance to thermal shock	UNE EN ISO 10.545-9	Expansion between 30-100°C	-	Passes/no damage	Passes/no damage	Passes/no damage	Passes/no damage
Determination of moisture expansion	UNE EN ISO 10.545-10	Maximum expansion	mm/m	0,1	0,1	0,1	0,1
		Intermediate expansion	mm/m	0,0	0,0	0,0	0,1
Determination of frost resistance	UNE EN ISO 10.545-12	Damage	-	Passes/no damage	Passes/no damage	Passes/no damage	Passes/no damage
Determination of chemical resistance	UNE EN ISO 10.545-13	CINH /Cleaning products	Class	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		Bleach / Pool salts	Class	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		HCl (3% v/v)	Class	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Citric A. (100g/l)	Class	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		KOH (30 g/l)	Class	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		HCl (18%)	Class	UHA (no damage)	UHA (no damage)	UHA (no damage)	UHA (no damage)
		Lactic A. (5%)	Class	UHA (no damage)	UHA (no damage)	UHA (no damage)	UHA (no damage)
		KOH (100 g/l)	Class	UHA (no damage)	UHA (no damage)	UHA (no damage)	UHA (no damage)
Determination of stain resistance	UNE EN ISO 10.545-14	Green agent	Class	5	5	5	5
		Red agent	Class	-	-	-	-
		Mud (solution)	Class	5	5	5	5
		Olive oil	Class	5	5	5	5

TEST	Stand-ard	Determination	Units	Family I	Family II	Family III	Family IV
Moisture expansion	ASTM C370	Average moisture expansion	%	0,02	0,005	0,004	*
Breaking strength	ASTM C648	Average breaking strength	lbf	3.963	4.896	3.932	*
Flexural properties	ASTM C674	Average modulus of rupture	psi	10.828	13.997	9.005	*
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0,03 (Impervious)	0,05 (Impervious)	0,01 (Impervious)	*
Static coefficient of friction (skid resistance)	ASTM C1028	Static coef. Friction dry	-	0,80	0,77	0,77	*
		Static coef. Friction wet	-	0,66	0,56	0,69	*
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0,57	0,33	0,47	*
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		182,2	337	240	*
Thermal shock resistance	ASTM C484	Defects	-	No defects	No defects	No defects	*
Bond strength	ASTM C482	Average bond strength	psi	423	437	357	*
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals					
		Acetic acid, 3% (v/v)	-	Not affected	Not affected	Not affected	*
		Acetic acid, 10% (v/v)	-	Not affected	Not affected	Not affected	*
		Ammonium chloride, 100 g/L	-	Not affected	Not affected	Not affected	*
		Citric acid solution, 30 g/L	-	Not affected	Not affected	Not affected	*
		Citric acid solution, 100 g/L	-	Not affected	Not affected	Not affected	*
		Lactic acid, 5% (v/v)	-	Not affected	Not affected	Not affected	*
		Phosphoric acid, 3% (v/v)	-	Not affected	Not affected	Not affected	*
		Phosphoric acid, 10% (v/v)	-	Not affected	Not affected	Not affected	*
		Sulfamic acid, 30 g/L	-	Not affected	Not affected	Not affected	*
		Sulfamic acid, 100 g/L	-	Not affected	Not affected	Not affected	*
		Swimming pool chemicals					
		Sodium hypochlorite solution, 20 mg/L	-	Not affected	Not affected	Not affected	*
		Acids and bases					
		Hydrochloric acid solution, 3% (v/v)	-	Not affected	Not affected	Not affected	*
		Hydrochloric acid solution, 18% (v/v)	-	Not affected	Not affected	Not affected	*
		Potassium hydroxide, 30 g/L	-	Not affected	Not affected	Not affected	*
		Potassium hydroxide, 100 g/L	-	Not affected	Not affected	Not affected	*
Absorption and density	ASTM C97	Average weight percent absorption	%	0,02	0,04	0,02	*
		Average density	lb/ft ³	156	160,63	157,6	*
Modulus of rupture	ASTM C99	Average modulus of rupture dry conditions	psi	8.128	9.042	7.369	*
		Average modulus of rupture wet conditions	psi	7.490	8.446	7.480	*
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	6.840	3.118	5.858	*
		Average flexural strength wet conditions	psi	6.205	4.187	5.119	*
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	34.409	>55.000	44.882	*
		Average compressive strength wet conditions	psi	17.823	>55.000	40.165	*
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349	349.48	265,8	*

DEKTON XGLOSS TECHNICAL INFORMATION

TEST	STANDARD	DETERMINATION	Units	Family I	Family II
Flexural and bending strength	UNE EN ISO 10.545-4	Mean flexural strength	N/mm ²	60	67
		Mean tensile strength	N	2548	2.313
		Mean breaking strength	N	14966	13.559
Water absorption, open porosity and densities	UNE EN ISO 10.545-3	Water absorption by boiling	%	0	0,1
		Water absorption by vacuum	%	0,1	0,1
		Open porosity	%	0,2	0,2
		Apparent relative density	g/cm ³	2,51	2,61
		Apparent density	g/cm ³	2,50	2,61
Resistance to deep abrasion	UNE EN ISO 10.545-6	Wear volume	mm ³	125	106
Determination of dimensions and surface quality	UNE EN ISO 10.545-2	Length and width	%	0,11/-0,18	0,04/-0,08
		Thickness	%	0,50/-0,50	4,95/-2,20
		Straightness of sides	%	0,01/-0,01	0,03/-0,03
		Orthogonality	%	0,07/-0,16	0,04/-0,09
		Lateral curvature	%	0,04/-0,08	-0,06
		Central curvature	%	0,06/-0,06	0,02/-0,04
		Warping	%	-0,11	-0,07
		Surface appearance (Tile defect)	%	100	100
Determination of the impact strength	UNE EN ISO 10.545-5	Mean coefficient of restitution	-	0,85	0,85
Determination of linear thermal expansion	UNE EN ISO 10.545-8	Expansion between 30-100°C	°C ⁻¹	6,5·10 ⁻⁶	5,1·10 ⁻⁶
Determination of resistance to thermal shock	UNE EN ISO 10.545-9	Damage	-	Passes/no damage	Passes/no damage
Determination of moisture expansion	UNE EN ISO 10.545-10	Maximum expansion	mm/m	0,1	0,1
		Intermediate expansion	mm/m	0,0	0,0
Determination of frost resistance	UNE EN ISO 10.545-12	Damage	-	Passes/no damage	Passes/no damage
Determination of chemical resistance	UNE EN ISO 10.545-13	CINH /Cleaning products	Clase	UA	UA
		Bleach / Pool salts	Clase	UA	UA
		HCl (3% v/v)	Clase	ULA	ULA
		Citric A. (100g/l)	Clase	ULA	ULA
		HCl (18%)	Clase	UHA	UHA
		Lactic A. (5%)	Clase	UHA	UHA
Determination of stain resistance	UNE EN ISO 10.545-14	Green agent	Clase	5	5
		Red agent	Clase	-	-
		Mud (solution)	Clase	5	5
		Olive oil	Clase	5	5

TEST	STANDARD	DETERMINATION	Units	Family I	Family II
Moisture expansion	ASTM C370	Average moisture expansion	%	0,02	0,005
Breaking strength	ASTM C648	Average breaking strength	lbf	3.963	4.896
Flexural properties	ASTM C674	Average modulus of rupture	psi	10.828	13.997
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0,03 (Impervious)	0,05 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	Static coef. Friction dry	-	0,96	0,96
		Static coef. Friction wet	-	0,56	0,56
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0,16	0,16
Relative resistance to wear (Taber abrasion)	ASTM C501	Average Abrasive Wear Index		182,2	337
Thermal shock resistance	ASTM C484	Defects	-	No defects	No defects
Bond strength	ASTM C482	Average bond strength	psi	423	437
Resistance to chemicals	ASTM C650	Common Household and cleaning chemicals			
		Acetic acid, 3% (v/v)	-	Not affected	Not affected
		Acetic acid, 10% (v/v)	-	Not affected	Not affected
		Ammonium chloride, 100 g/L	-	Not affected	Not affected
		Citric acid solution, 30 g/L	-	Not affected	Not affected
		Citric acid solution, 100 g/L	-	Not affected	Not affected
		Lactic acid, 5% (v/v)	-	Not affected	Not affected
		Phosphoric acid, 3% (v/v)	-	Not affected	Not affected
		Phosphoric acid, 10% (v/v)	-	Not affected	Not affected
		Sulfamic acid, 30 g/L	-	Not affected	Not affected
		Sulfamic acid, 100 g/L	-	Not affected	Not affected
		Swimming pool chemicals			
		Sodium hypochlorite solution, 20 mg/L	-	Not affected	Not affected
		Acids and bases			
		Hydrochloric acid solution, 3% (v/v)	-	Not affected	Not affected
		Hydrochloric acid solution, 18% (v/v)	-	Not affected	Not affected
		Potassium hydroxide, 30 g/L	-	Not affected	Not affected
		Potassium hydroxide, 100 g/L	-	Not affected	Not affected
Absorption and specific gravity	ASTM C97	Average weight percent absorption	%	0,02	0,04
		Average density	lb/ft ³	156	160,63
Modulus of Rupture	ASTM C99	Average modulus of rupture dry conditions	psi	8.128	9.042
		Average modulus of rupture wet conditions	psi	7.490	8.446
Flexural strength	ASTM C880	Average flexural strength dry conditions	psi	6.840	3.118
		Average flexural strength wet conditions	psi	6.205	4.187
Compressive strength	ASTM C170	Average compressive strength dry conditions	psi	34.409	>55.000
		Average compressive strength wet conditions	psi	17.823	>55.000
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349	349,48

Certifications

DEKTON® by Cosentino is in the process of certification of the following worldwide institutions.

NSF



NSF International is an independent non-profit organisation devoted to safety in public health and environmental protection. NSF, is a worldwide leader, in the development of standards, product certifications, education and risk management for health and public safety.

The different Dekton® by Cosentino products have been tested and evaluated by NSF in accordance with international standard 51.

Obtaining the NSF certification and thus, the right to use the logo for the certified products, entails, a toxicological evaluation of all the ingredients of all the different products, proficiency testing and successfully passing unannounced audits annually, in all manufacturing sites.

To see the list of products that currently have the certificate, visit the NSF website:

www.nsf.org.

GREENGUARD



The Greenguard Certification programme identifies those products that have been tested to guarantee that their chemical and particle emissions are in line with the strict guidelines for indoor contaminants.

Likewise, Greenguard has another certification, Greenguard Gold, which assesses the sensitive nature of schools along with the characteristics of this type of building. This certification includes maximum control of the requirements with regard to chemical product emissions.

Dekton® by Cosentino has been analysed by Greenguard, proving that it does not emit any type of VOC and thus has achieved the Greenguard Certified (Certificate No. 41572-410) and Greenguard Gold (Certificate No. 41572-420) Certifications. The certifications of the different Cosentino products can be downloaded from the Greenguard webpage: www.greenguard.org

www.greenguard.org

ETE / ETA



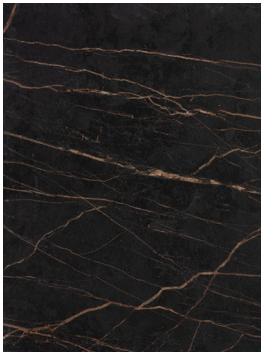
Evaluación Técnica Europea (ETE)
European Technical Assessment (ETA)

An European Assessment Document is a document that contains at least a general description of the construction product, the list of essential characteristics, relevant for the intended use of the product provided by the manufacturer and agreed between the manufacturer and the technical assessment body, the methods and criteria for assessment of the product properties in relation to its essential characteristics, as well as controlling factory production.

A request for a European Technical Assessment is performed by a manufacturer of any manufactured product, if that product is not covered or not fully covered by a harmonised standard. This assessment will demonstrate its performance against its essential features and will be assessed by a technical evaluation body.

Dekton® by Cosentino has been tested by the ITeC (Institute of Construction Technology of Catalonia) as a product for ventilated façades. Once the European Technical Assessment is approved, the CE mark will be applied directly to the product for this type of applications.

DEKTON COLOURS



LAURENT

562.58.416

3200 x 1440 x 8 MM

562.58.418

3200 x 1440 x 12 MM

562.58.411

3200 x 1440 x 4 MM



BROMO

562.58.496

3200 x 1440 x 8 MM



MILAR

562.58.506

3200 x 1440 x 8 MM



LAOS

562.58.516

3200 x 1440 x 8 MM

562.58.578

3200 x 1440 x 12 MM

562.58.571

3200 x 1440 x 4 MM



PORTUM

562.58.526

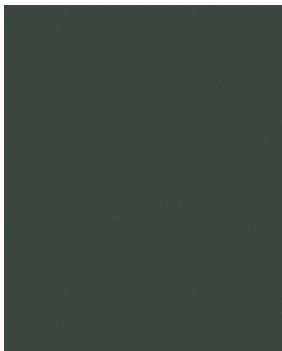
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BEDROCK

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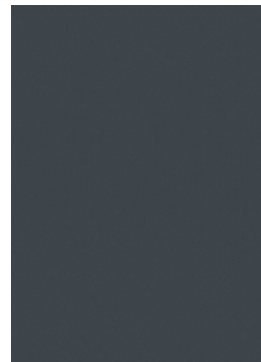
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FEROE

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3200 x 1440 x 8 MM



BALTIC

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3200 x 1440 x 8 MM



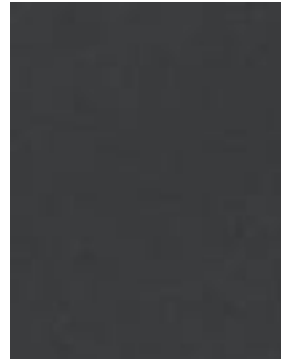
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562.58.486

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ETER

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562.58.591

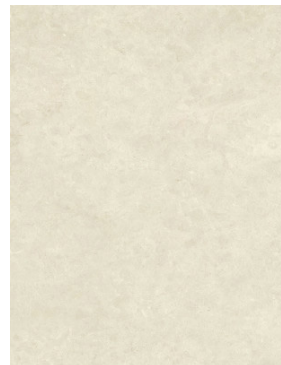
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AERIS

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SASEA

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562.58.610

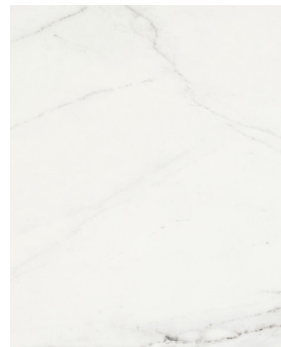
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LIQUID SHELL

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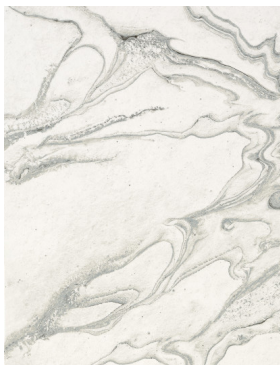
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REM

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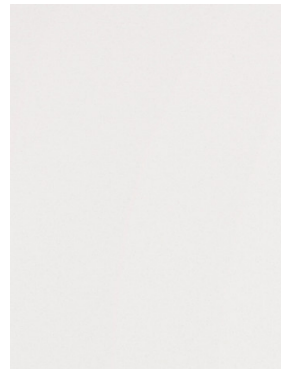
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LIQUID SKY

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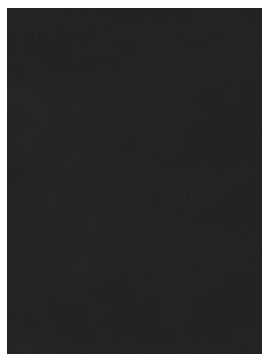
3200 x 1440 x 8 MM



VIENNA

562.58.566

3200 x 1440 x 8 MM



DOMOOS

562.58.006

3200 x 1440 x 8 MM



DANAЕ

562.58.156

3200 x 1440 x 8 MM



VEGHA

562.58.056

3200 x 1440 x 8 MM

562.58.058

3200 x 1440 x 12 MM



SIRIUS

562.58.306

3200 x 1440 x 8 MM

562.58.308

3200 x 1440 x 12 MM

562.58.301

3200 x 1440 x 4 MM



STRATO

562.58.026

3200 x 1440 x 8 MM



SIROCCO

562.58.016

3200 x 1440 x 8 MM

562.58.588

3200 x 1440 x 12 MM

562.58.581

3200 x 1440 x 4 MM



KERANIUM

562.58.046

3200 x 1440 x 8 MM



KEON

562.58.106

3200 x 1440 x 8 MM

562.58.468

3200 x 1440 x 12 MM



TRILIUM

562.58.196

3200 x 1440 x 8 MM

562.58.198

3200 x 1440 x 12 MM



KELYA

562.58.066

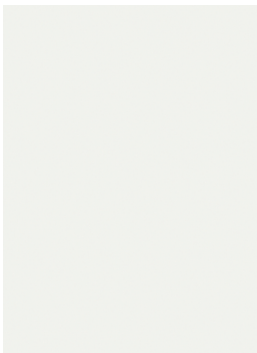
3200 x 1440 x 8 MM

562.58.068

3200 x 1440 x 12 MM

562.58.061

3200 x 1440 x 4 MM



ZENITH

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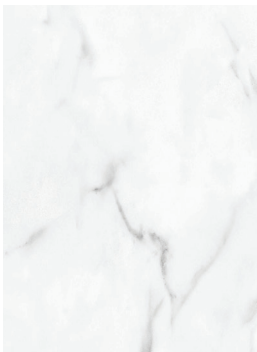
KIRA

562.58.446

3200 x 1440 x 8 MM

562.58.448

3200 x 1440 x 12 MM



KAIROS

562.58.136

3170 x 1420 x 8 MM



VERA

562.58.426

3200 x 1440 x 8 MM



BLANC CONCRETE

562.58.286

3200 x 1440 x 8 MM



ENTZO

562.58.146

3170 x 1420 x 8 MM



AURA 15

562.58.126

3170 x 1420 x 8 MM

562.58.478

3170 x 1420 x 12 MM

562.58.470

3200 x 1440 x 4 MM





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Shanti Nagar, Bangalore - 560 025
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Fax: 080 4132 6226

Bangalore

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PS PACE, Premises No. 1/1A,
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