

# Dekton for Architectural Projects

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ULTRACOMPACT SURFACES

A product designed by **COSENTINO**



## **Architectural Projects**

by **DEKTON®**



## WHAT IS DEKTON?

**Dekton is the new ultracompact surface created through the innovative combination of more than 20 minerals. New techniques such as ultracompaction and synthesization turn Dekton into a material with unique properties and limitless possibilities – an improved version of natural stone.**

PST is a process that sinters mineral particles so that they link up and change their internal structure. PST technology completely synthesizes innovative procedures from the most advanced technology industries.

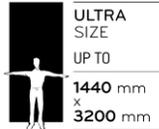
This evolution represents a technological and industrial leap capable of generating a new process, a revolutionary material and a leading product.

Dekton uses the exclusive PST technology, a technological process that uses an accelerated version of the metamorphic changes that natural stone undergoes from exposure to high pressure and high temperatures for thousands of years.

It features virtually zero porosity and its non-existence of microflaws, that cause tension and weaknesses, set Dekton apart from other materials.



### DEKTON FORMATS



ULTRA  
SIZE  
UP TO  
1440 mm  
x  
3200 mm

Thanks to its mechanical properties which are 3 times better than granite, Dekton offers limitless possibilities in every surface in small or large format, from façades to high-traffic flooring.



ULTRA  
THICKNESS  
8 mm  
12 mm  
20 mm  
30 mm

Dekton slabs come in different thicknesses, from 0.8 cm to 3 cm, so that you choose the most appropriate option depending on the application, design or desired effect.

### DEKTON ADVANTAGES



Highly UV Resistant



Scratch Resistant



Resistant to Stains



Maximum Resistance to Heat



Resistant to Abrasion



Resistance to Freezing and Thawing



Superior Mechanical Resistance



Low Water Absorption



Colour Stability



Dimensional Stability



Fireproof Material



High Resistance to Hydrolysis

### DEKTON APPLICATIONS



Kitchen Countertops



Bathroom Countertops



Outdoor Countertops



Indoor Floors



Bathroom and Pool Floor Coverings



Outdoor Terrace Floor Coverings



Indoor Walls



Bathroom Walls



Exterior Walls

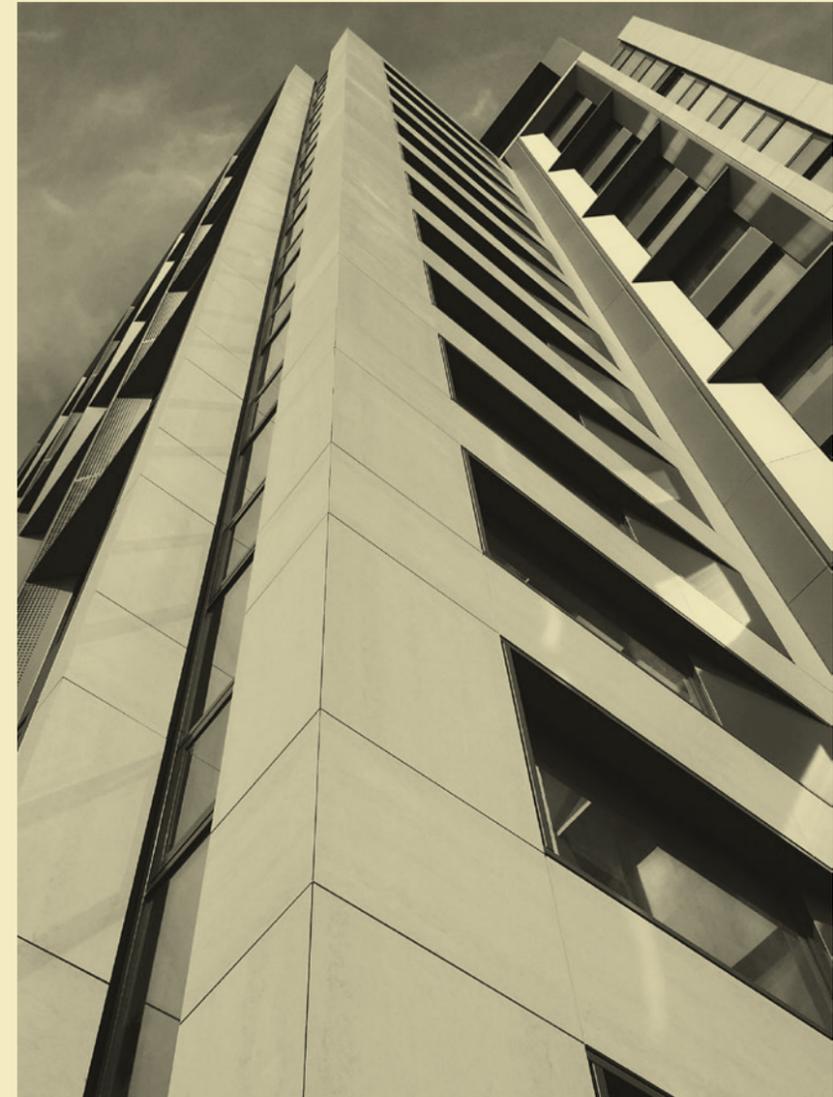


Stairs

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## Ventilated Façades



Superior Mechanical  
Resistance



Highly UV  
Resistant



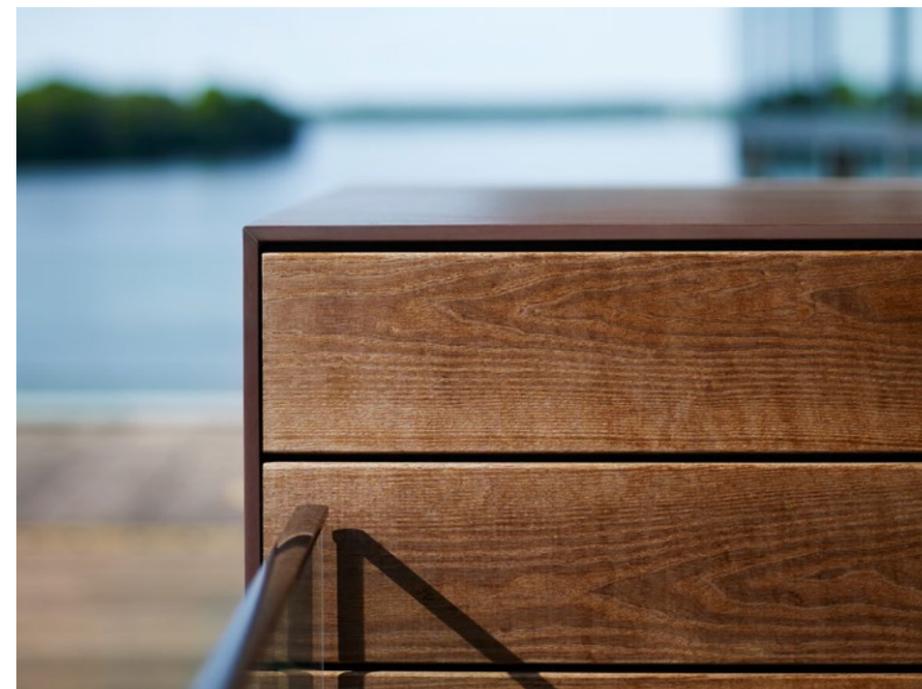
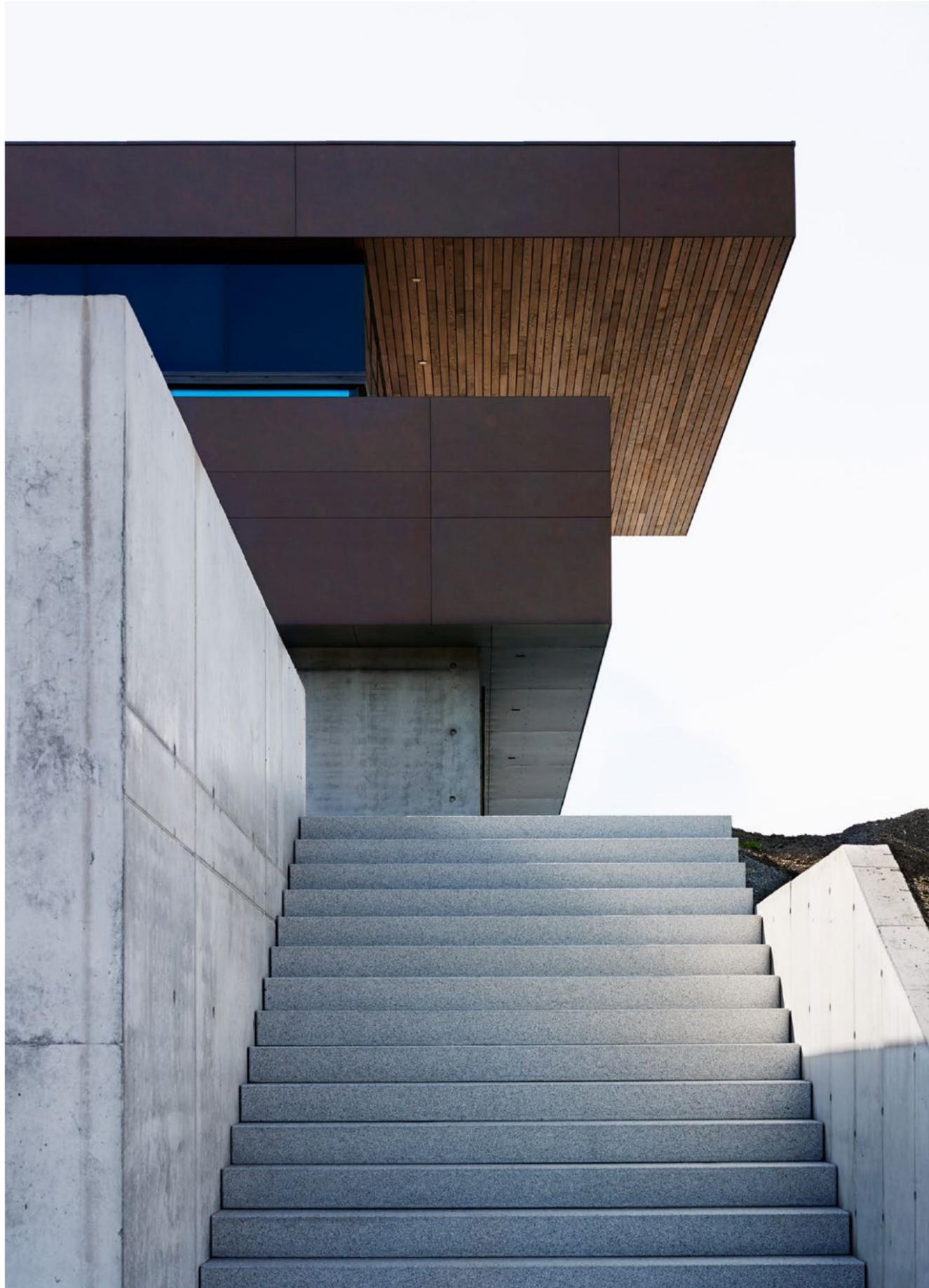
Resistance to Freezing  
and Thawing



Dimensional  
Stability





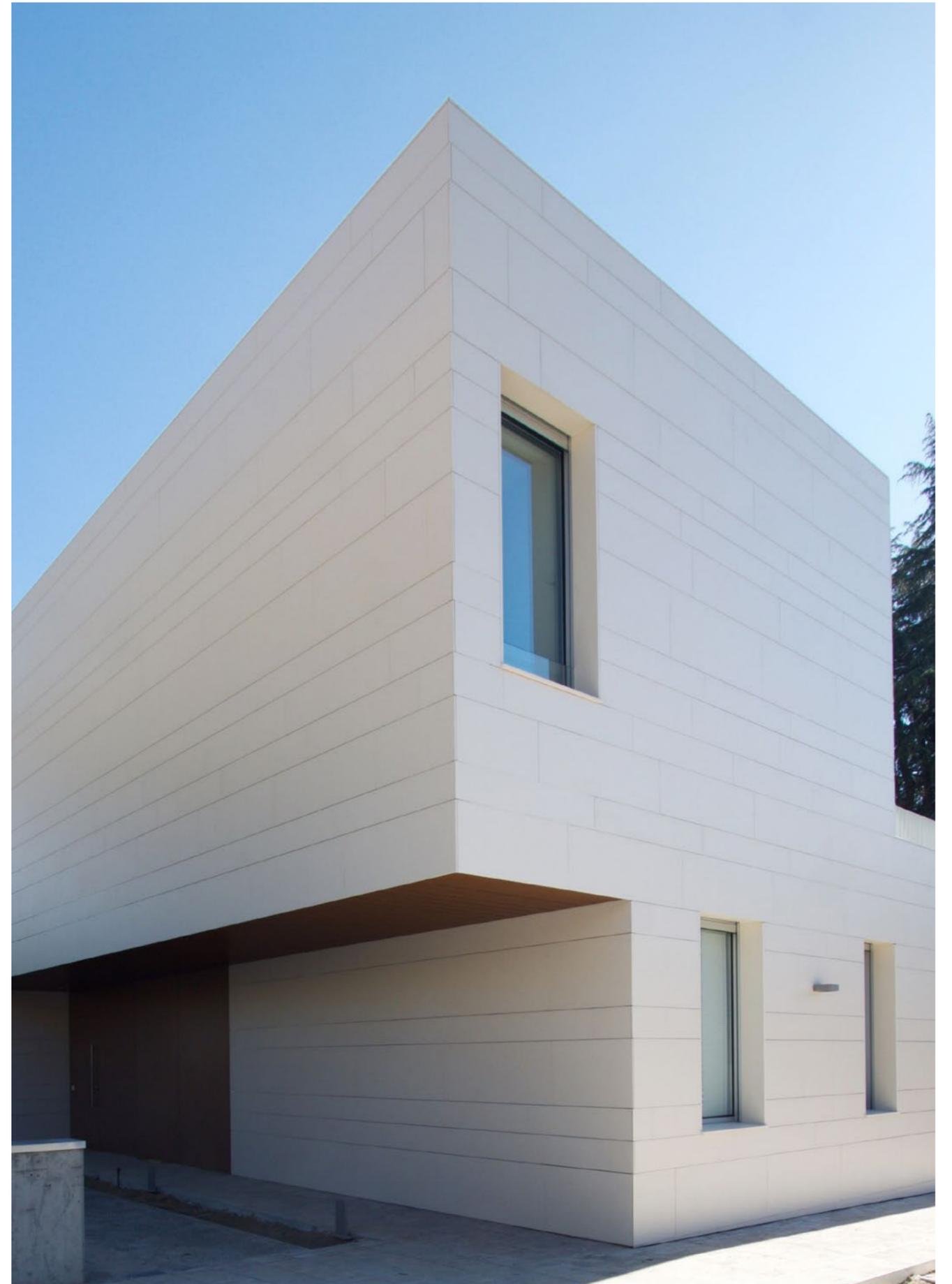


Ultracompact surfaces with 1.2 cm thickness are ideal for, probably the most demanding architectural application: the independent skin of buildings.

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.



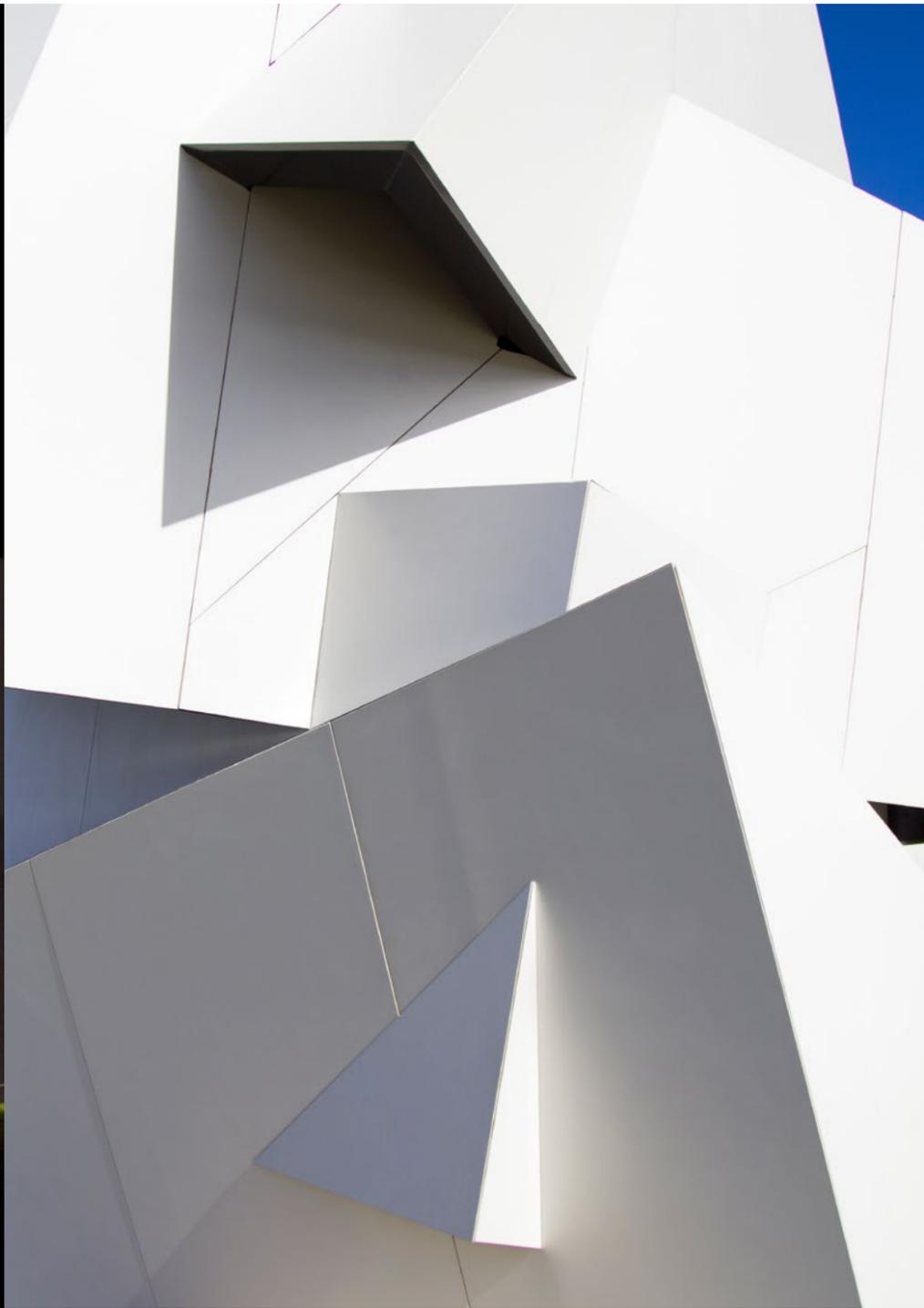






RAFA NADAL  
**ACADEMY**  
BY  movistar

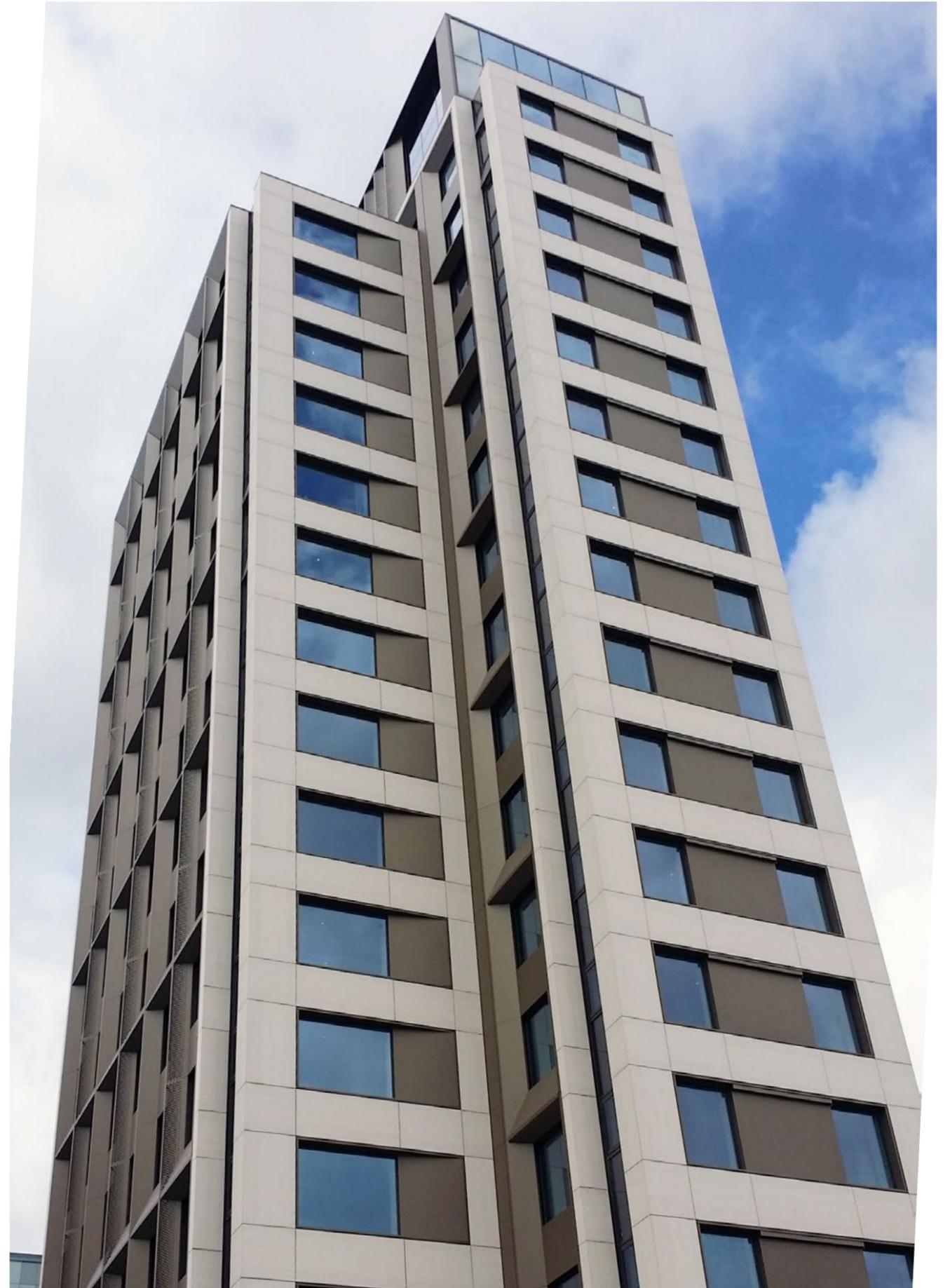




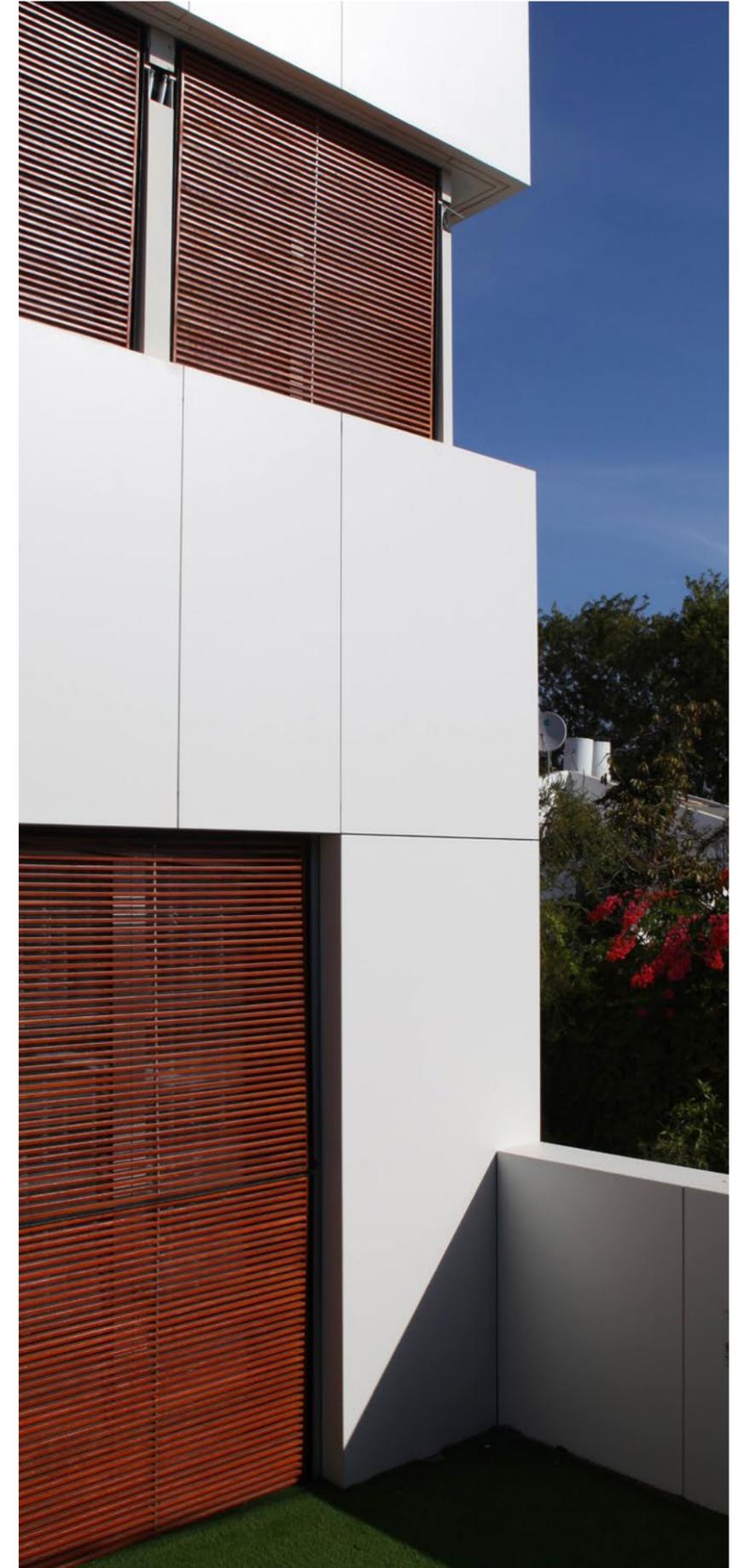


Current challenges go from a shop that needs a great personality (where all pieces are different and joints need total accuracy to integrate the lighting system, led lights

for instance) to the renovation of a skyscraper for which large scale pieces can resist wind or earthquakes.



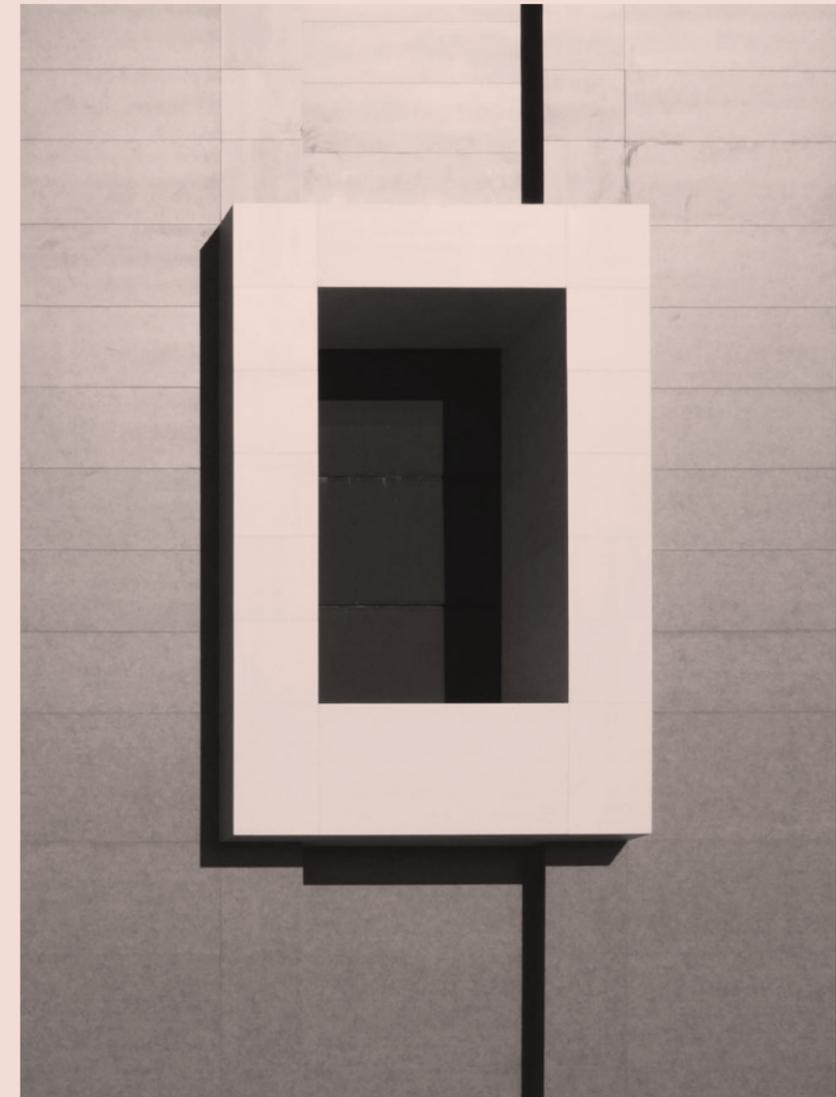




Building façades go beyond the building itself. Each piece is measured with pinpoint accuracy and the resulting overall look is permanent.

Neither the sun or ice will leave traces on the material (shape and colour stability, warping-free, are the key to everlasting architecture).

## Thin-Set Cladding



Dimensional  
Stability



Low Water  
Absorption



Resistant  
to Stains



Highly UV  
Resistant



Marc Cain | Amsterdam (The Netherlands) | Dekton Zenith



Sephora | California (USA) | Dekton Domoos - Zenith



Banco Popular | Sevilla (Spain) | Customised Dekton Popular Dark

The surface of a city is an ever changing skin, exposed to the best and worst of people. Graffiti can ruin the greatest design, unless the material can resist almost everything. 0.8cm thickness together with a top mechanical performance is the key to ensure windows and thin solid walls become one, in shape and size.

When that skin is solid, it must be perfectly level and have impeccable straight edges and drills so the logo is the leading actor.



Massive | Izmir (Turkey) | Dekton Sirius



## Swimming Pools



Resistant  
to Stains



High Resistance  
to Hydrolysis

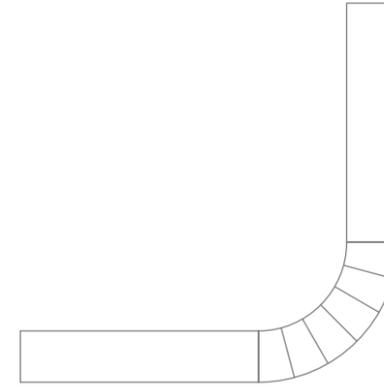


Low Water  
Absorption



Dimensional  
Stability





We all want to dive in when we see a swimming pool in summer, with its small tiles in a spotless ocean blue. But we all forget (or ignore), that the same swimming pool becomes a nightmare for the owners in spring and autumn, fighting against the green flecks that cling to the joints.

Why not change the rules? Why not use large plates for the sides and the bottom? Why not integrate the surrounding floor with the pool itself? Why not even think about rounded edges and corners? Never before has this been possible – but it is today.

And what about the slipperiness of a shower tray or cladding from floor to ceiling with the same material and different textures? Before, that was a limitation. Not anymore.





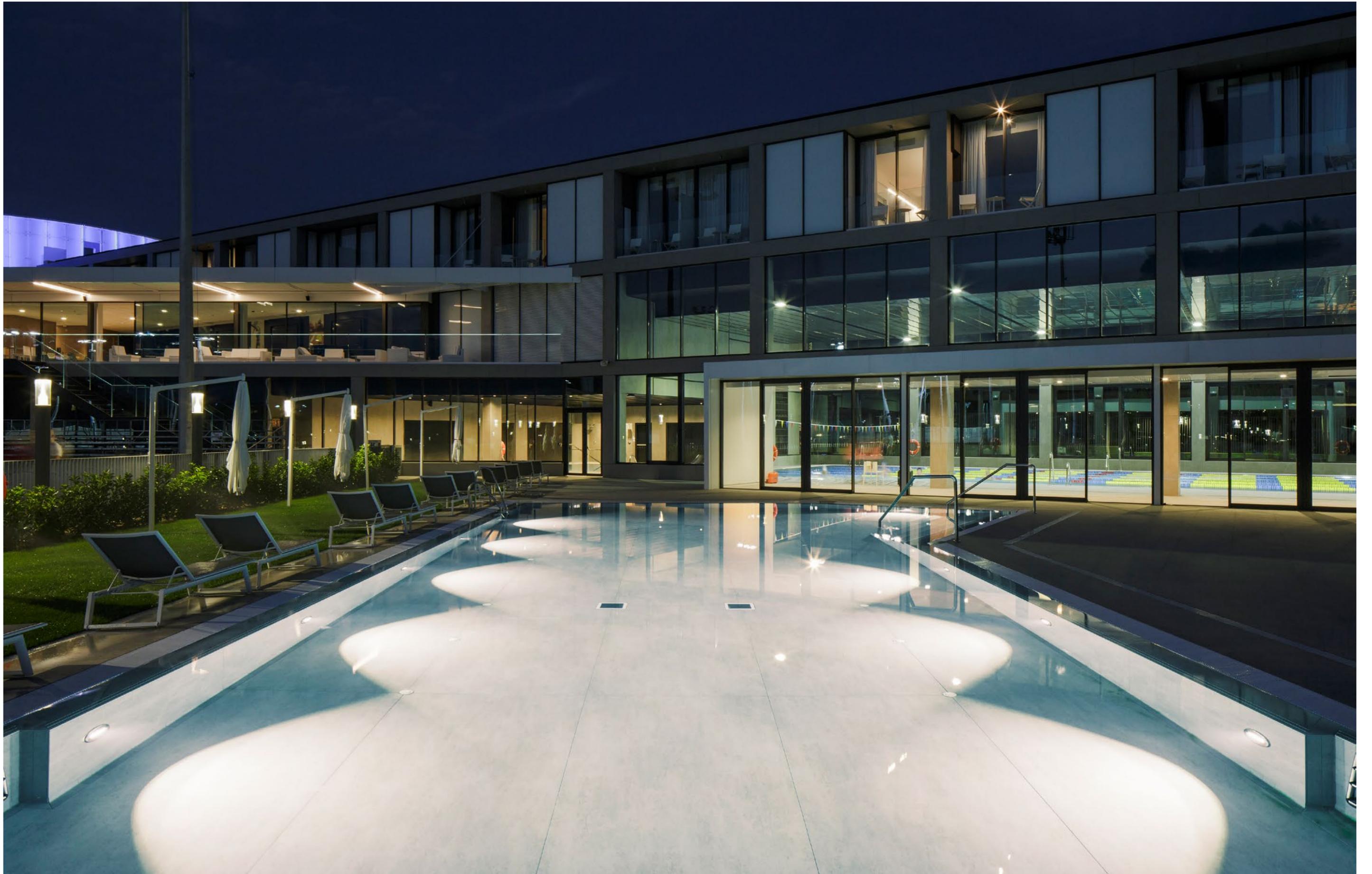
Rafa Nadal Academy | Dekton Trilium | © Fernando Alda



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





Hagag | Kfar Shmaryahu (Israel) | Dekton Zenith



Pitch Concept | USA | Dekton Aura



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 been ever damaged by snow or frost? Cheap becomes expensive when adding up the regular maintenance.

## Large Size Flooring



Resistant to  
Abrasion



Superior Mechanical  
Resistance



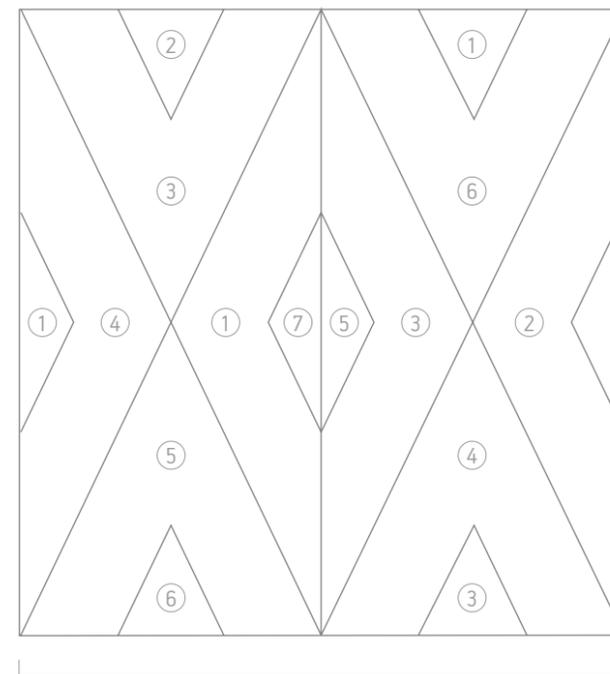
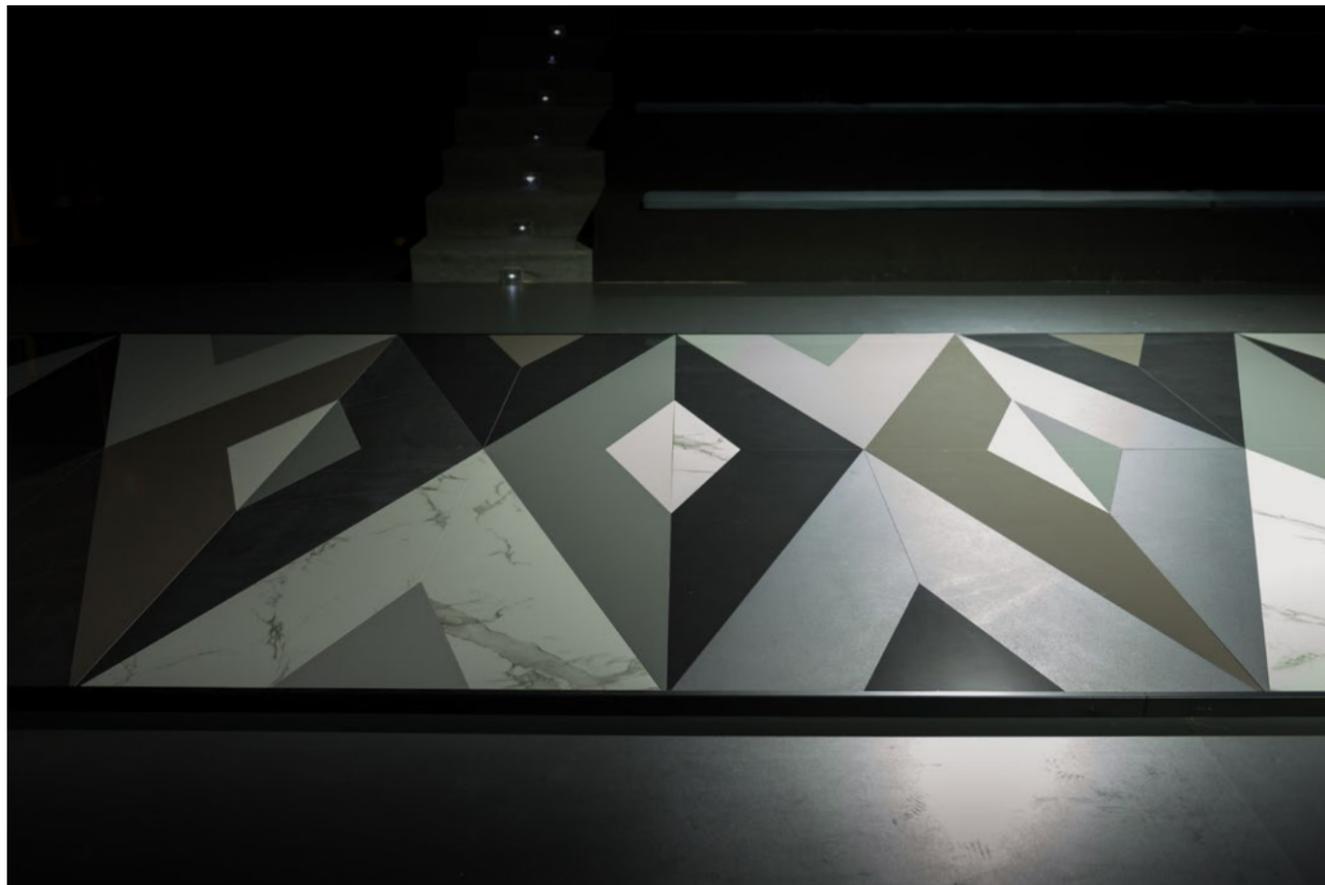
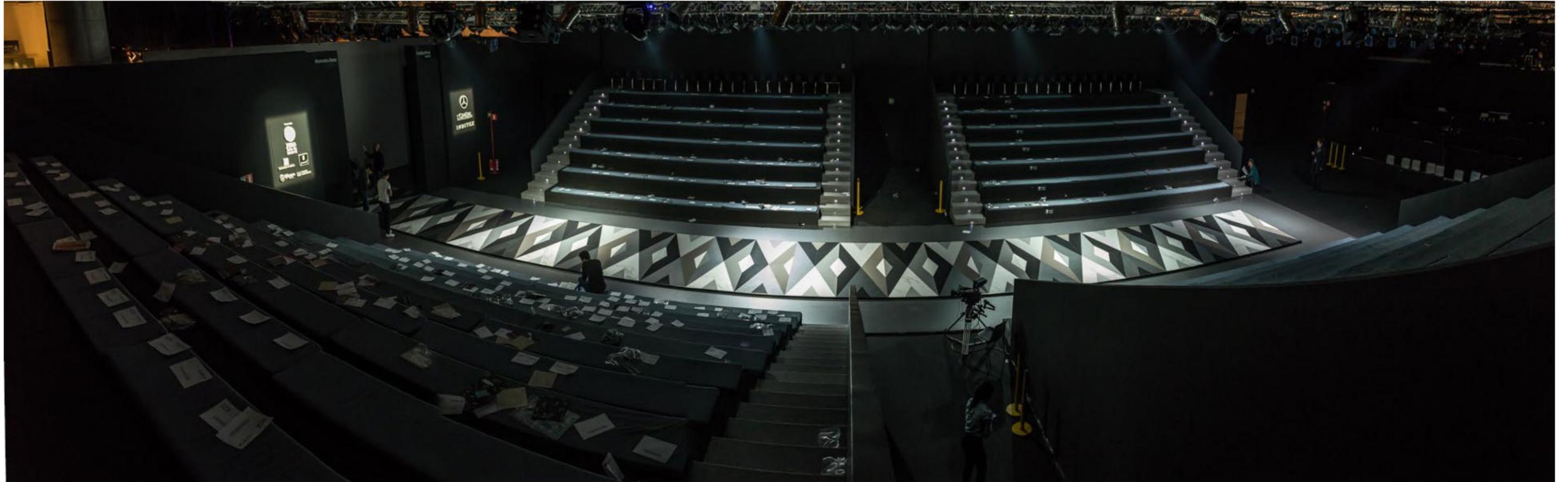
Dimensional  
Stability



Resistant  
to Stains







Repetition Pattern (x13)

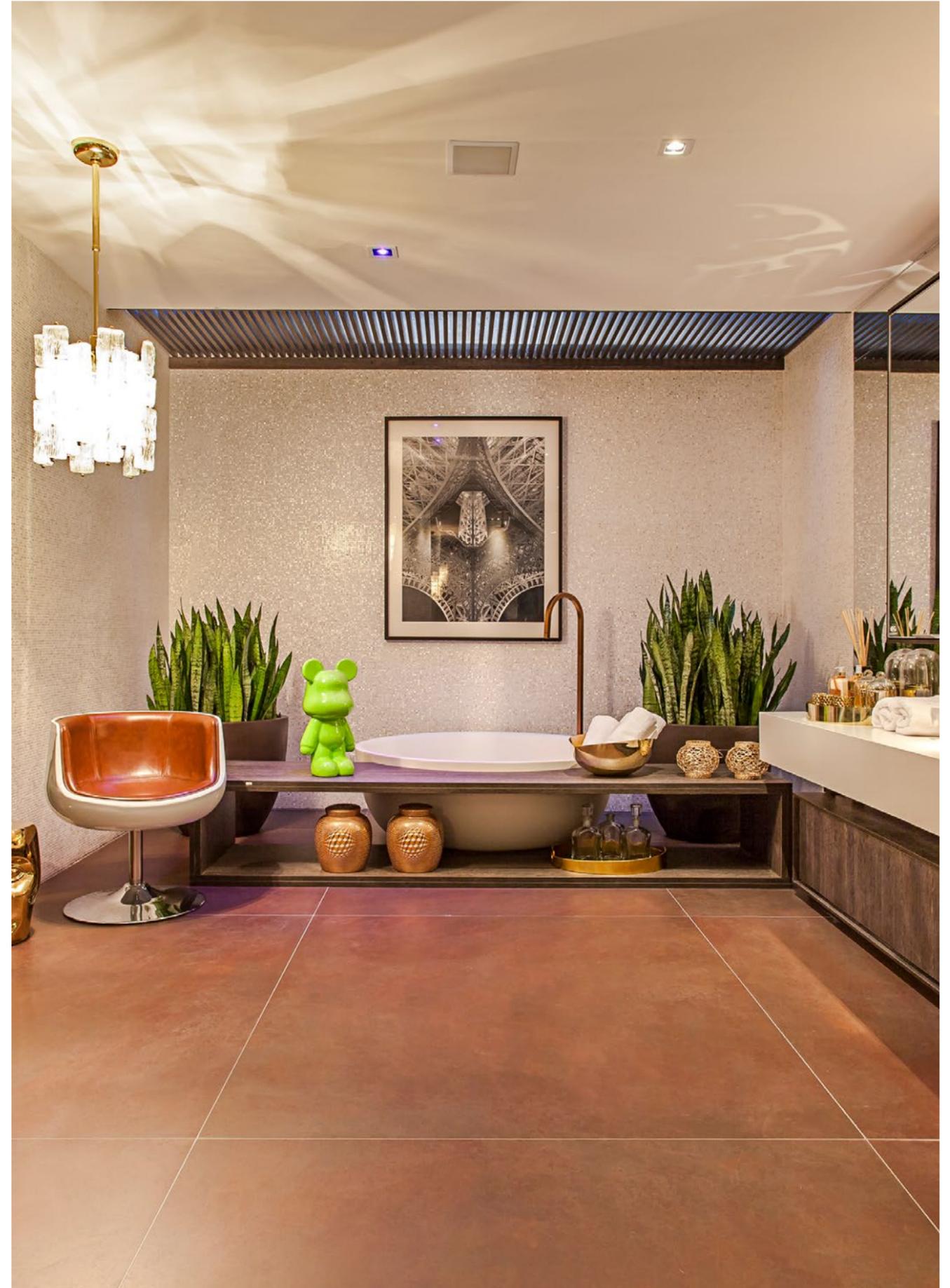
- ① Blaze Solid
- ② Lumina Solid
- ③ Negro Solid
- ④ Kelya Natural
- ⑤ Aura Natural
- ⑥ Splendor Solid
- ⑦ Halo Solid

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.



Apartment Conde de Aranda | Madrid (Spain) | Dekton Ariane | © Raquel Elliot



Casa Cor | Dekton Kadum | © Brunette Fraccaroli

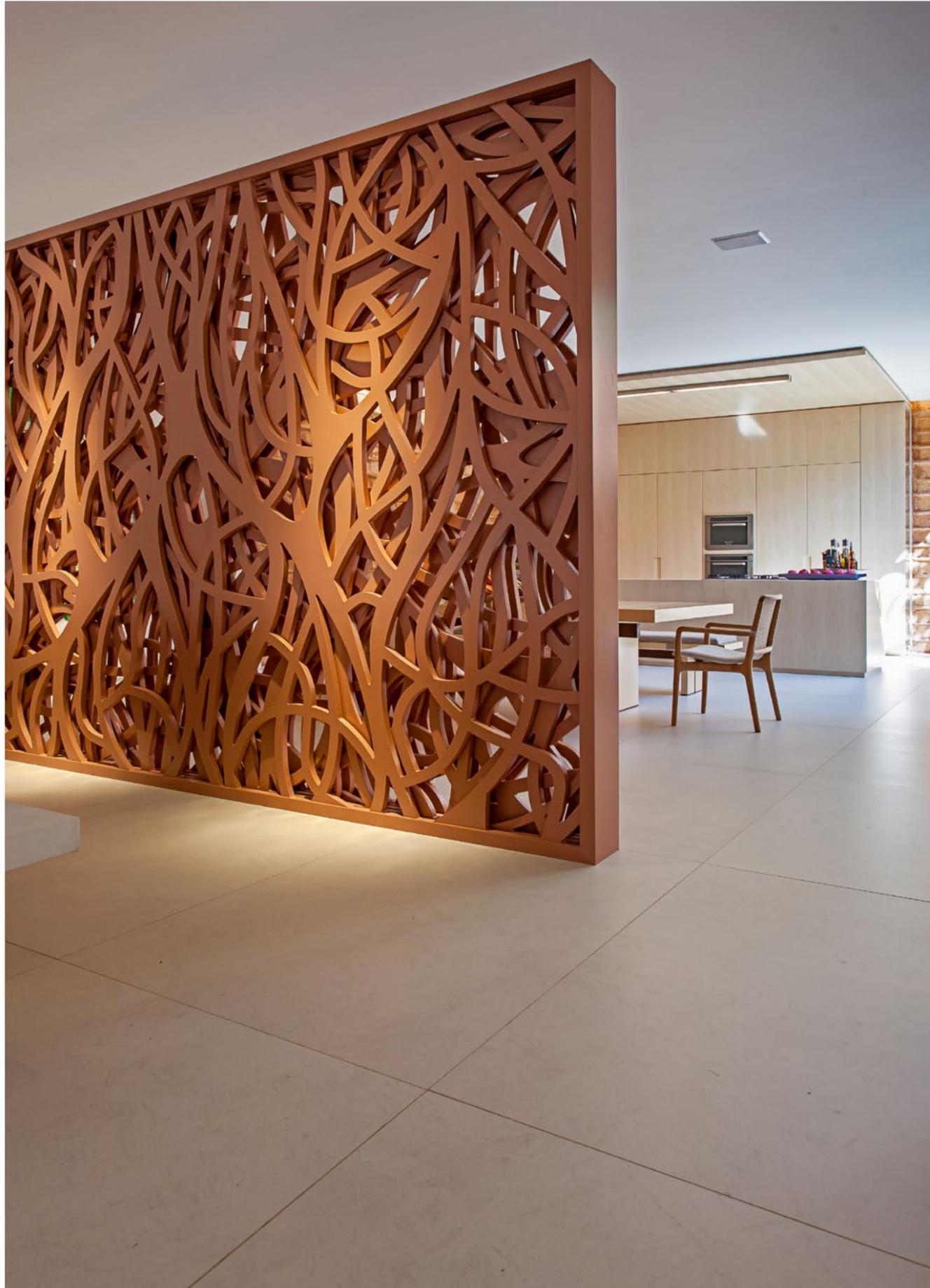




Spain Pavilion Expo Milano | Customised Dekton Zenith using inkjet printing technology





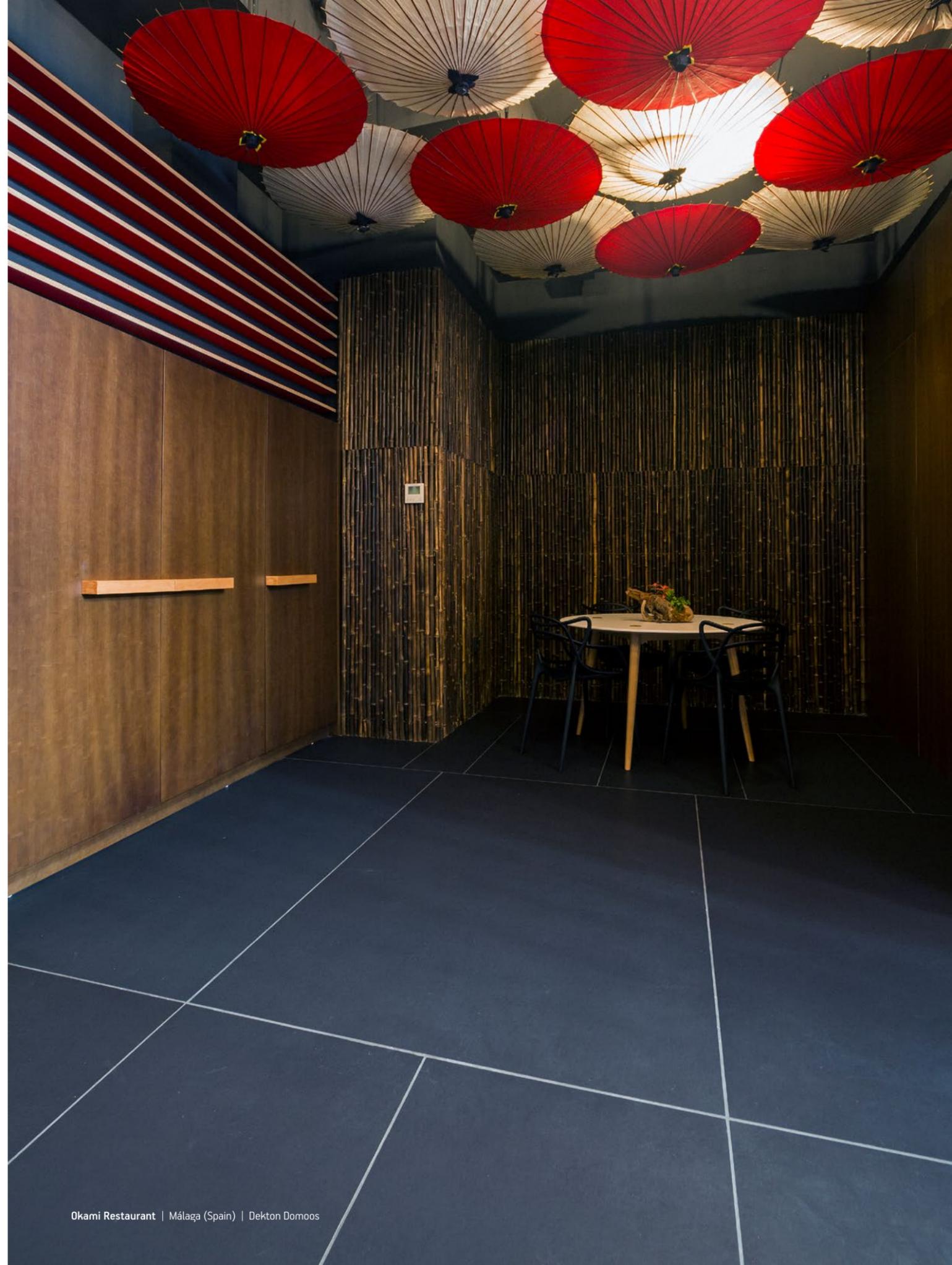








Casa Cor | Dekton Sirius | © Sig Bergamin



Okami Restaurant | Málaga (Spain) | Dekton Domoos





Cajamar | Dekton Danae | © Fernando Alda



Foa Kucher | Dekton Blanc Concrete - Keon | © Architect Micaela Bosio. Lopez, Kucher, Caran, Segoura and Dominguez



Microsoft Head Office | Taipei (Taiwan) | Dekton Keon

## Steps & Risers



Fireproof  
Material



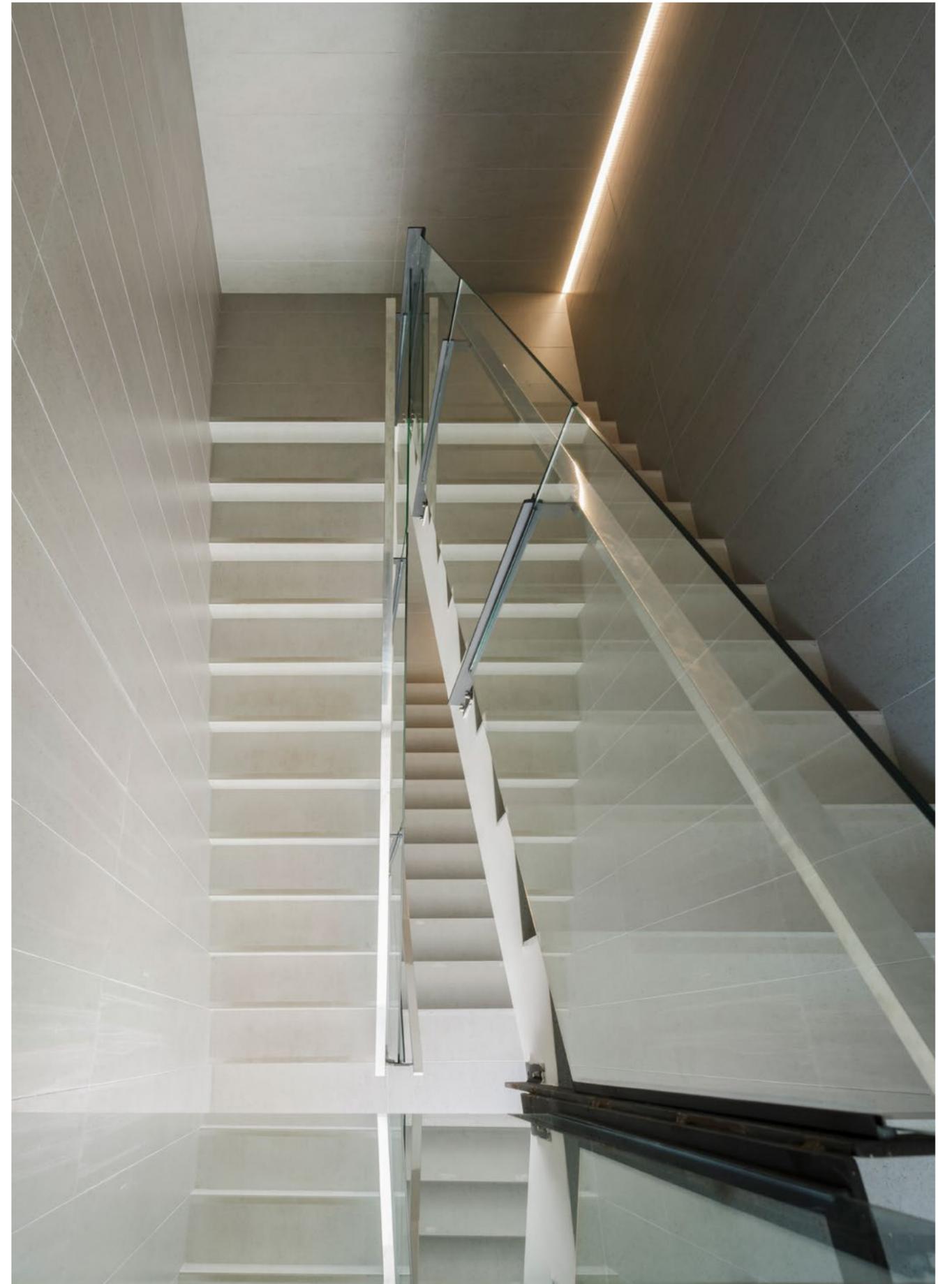
Superior Mechanical  
Resistance



Dimensional  
Stability

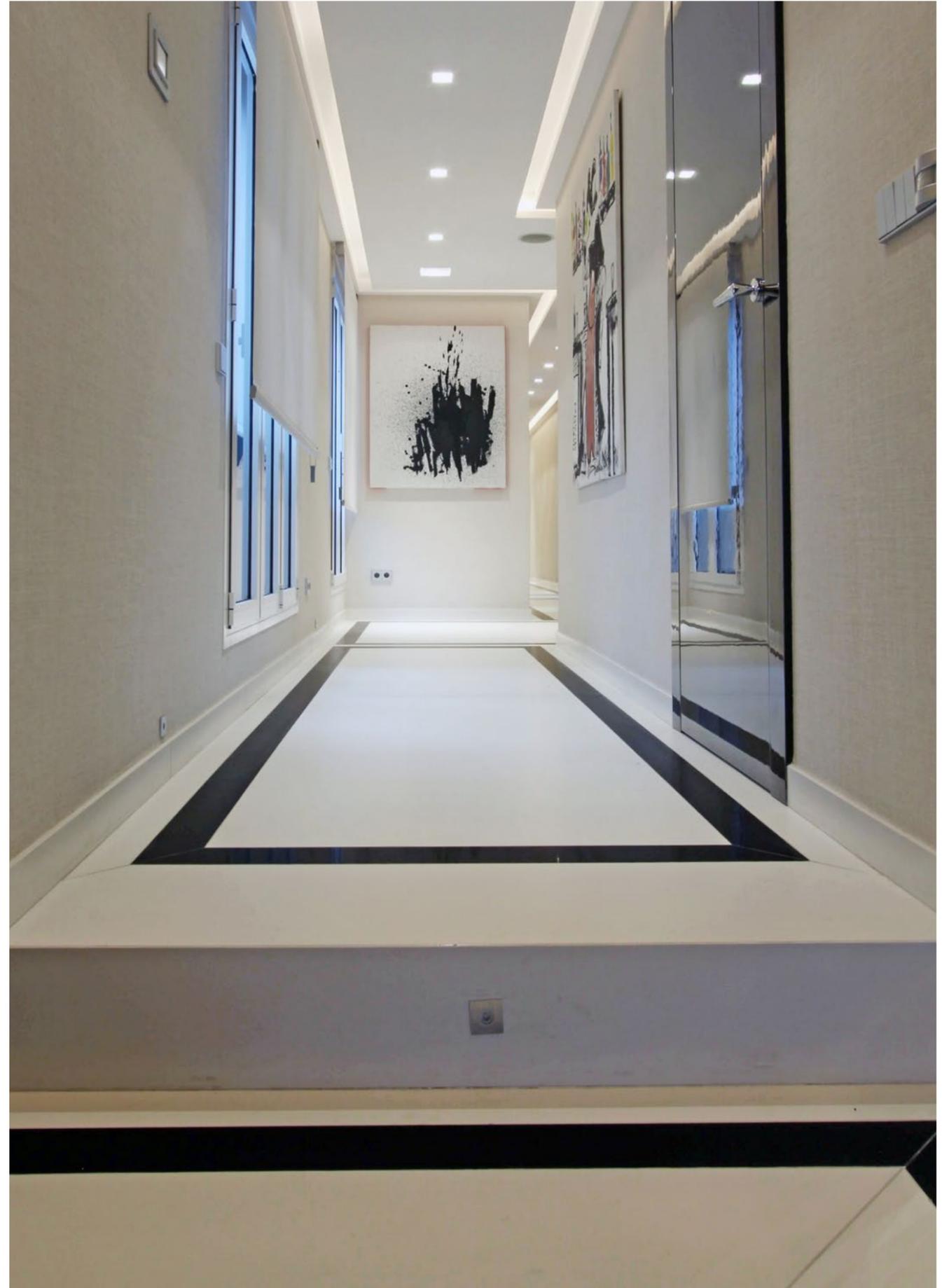


Scratch  
Resistant



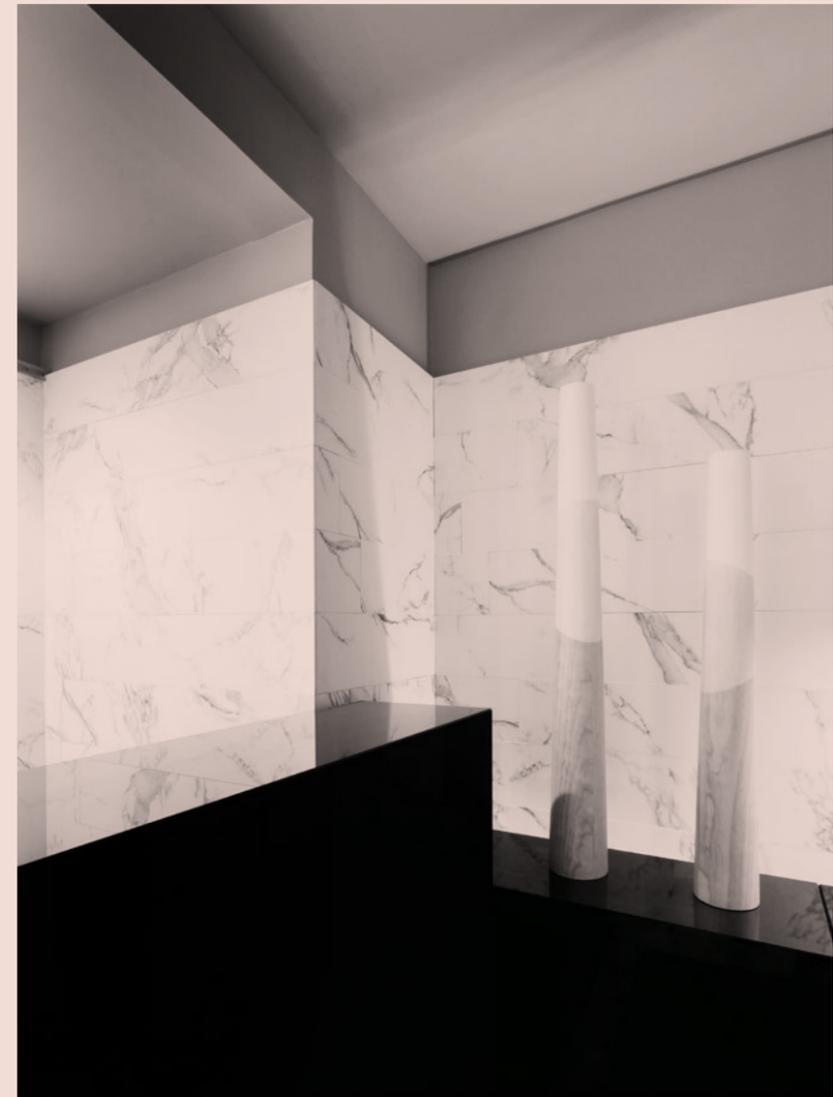


Cajamar | Dekton Danae | © Fernando Alda



Apartment Conde de Aranda | Madrid (Spain) | Dekton Ariane | © Raquel Elliot

## 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 Bookmatch | © Fabio Morozini - Fran Parente



Casa Decor 2016 | Dekton Trilium | © Ricardo Santonja



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



## Indoor Countertops



Maximum Resistance  
to Heat



Low Water  
Absorption



Scratch  
Resistant



Resistant  
to Stains





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



Casa Cor | Dekton Kadum | © MCA Studio





Foa Kucher | Dekton Blanc Concrete - Keon | © Architect Micaela Bosio. Lopez, Kucher, Caran, Segoura and Dominguez



Private House | Dekton Kadum | © Luis Diaz Diaz





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... that is a whole other level. Protection with design is only available within

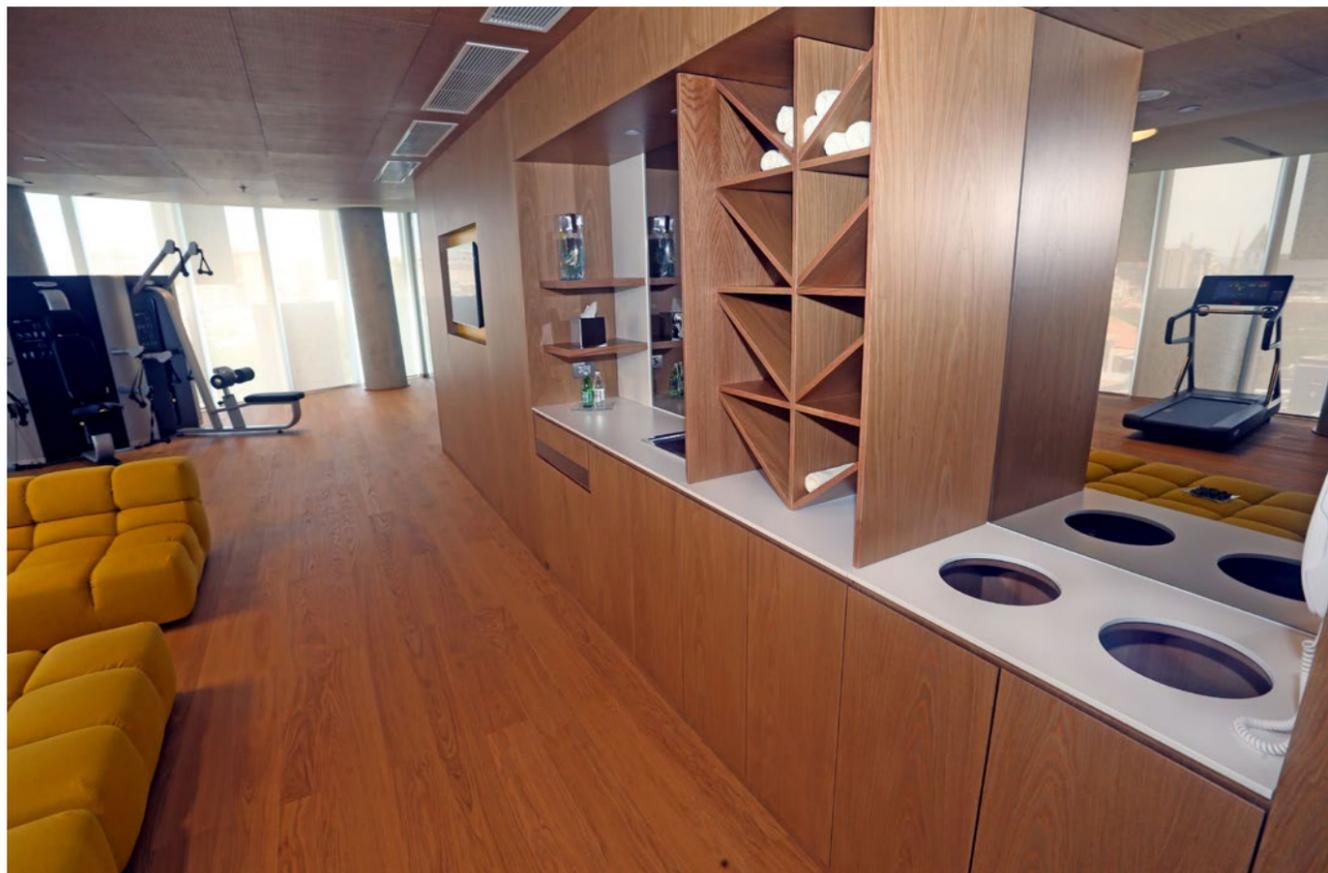
materials that offer top mechanical properties (for example, bending resistance) and zero porosity regardless of the texture (for an effortless cleaning with any chemical product).



Microsoft Head Office | Dekton Keon - Zenith | © Designer Space Matrix



Casa Cor | Dekton Keranium | © Carlos Piratininga



The Plaza Hotel 5\* | Tirana (Albania) | Dekton Zenith



Choosing where to place an island is not only a matter of space, but also of function. The first step in the design process is knowing how big the island can be using just one piece.

Later, we need to check the size of overhung parts, if the material can be easily cut without breaking risks, availability of the material in 2 or 3 cm thickness so the edge becomes an aesthetically pleasing feature. Only then, the structure underneath can be designed.

## Bar Tops



Resistant  
to Stains



Low Water  
Absorption



Superior Mechanical  
Resistance

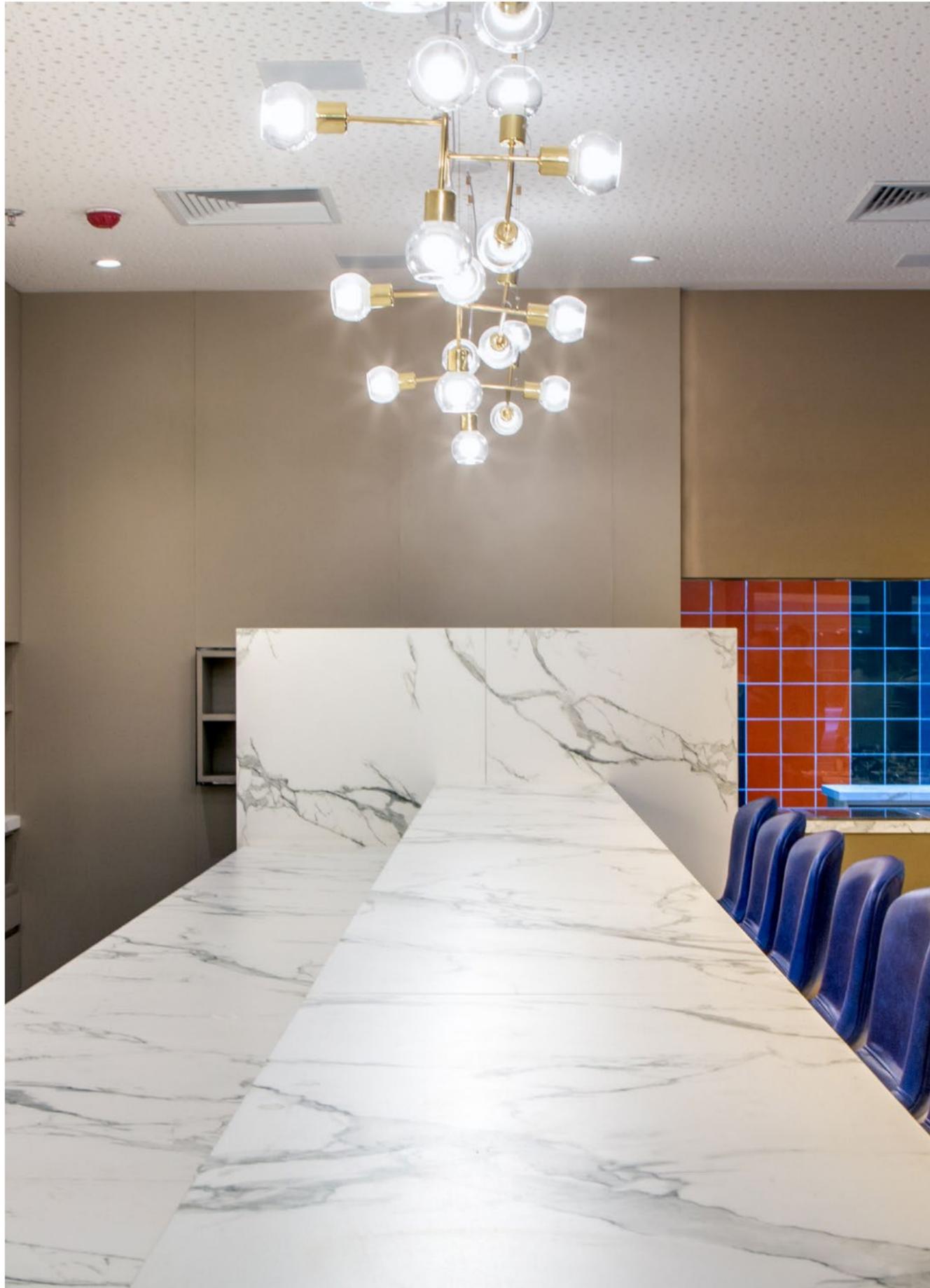


Resistant to  
Abrasion











## Food Services



Maximum Resistance  
to Heat



Fireproof  
Material



Scratch  
Resistant



Resistant to  
Abrasion



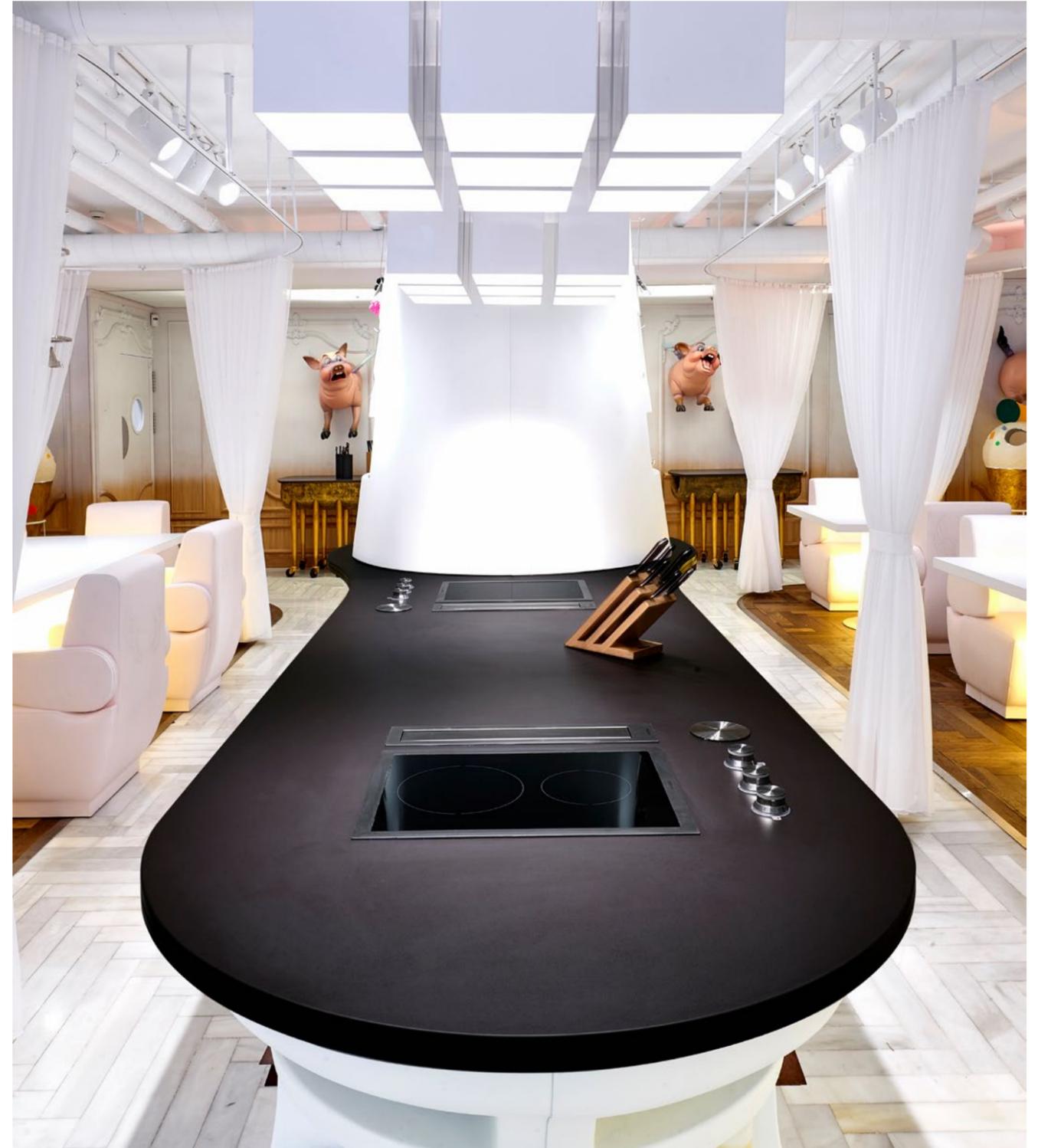




D'Stage Restaurant | Madrid (Spain) | Dekton Keranium

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





Restaurant André | Singapore (Singapore) | Dekton Galema



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



Casa Cor | Dekton Aura | © Michel Alban - Jónatas Padilha



# Fireplace Surrounds



Fireproof  
Material



Superior Mechanical  
Resistance



Dimensional  
Stability

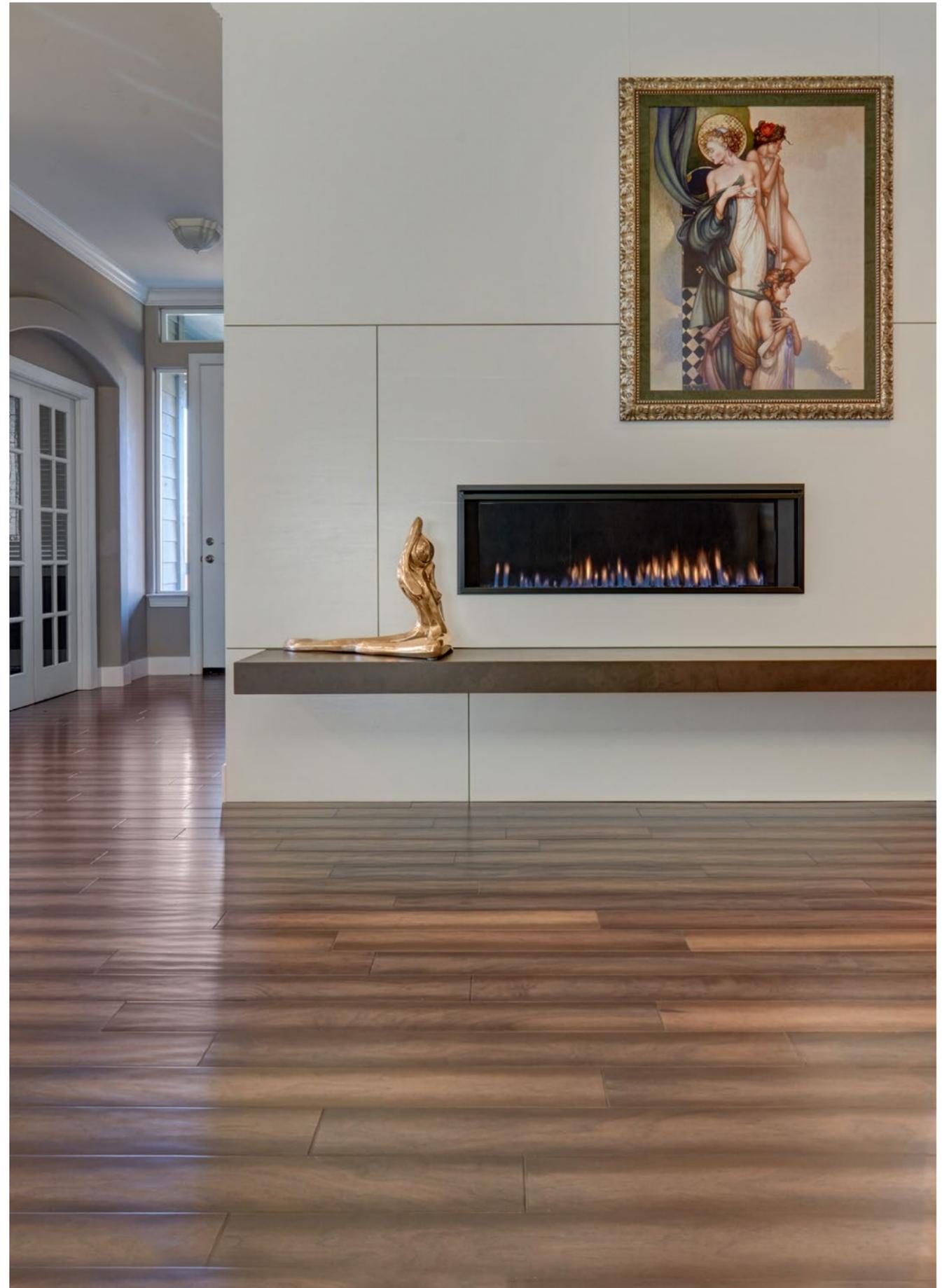


Maximum Resistance  
to Heat





Mandarin Oriental | Las Vegas (USA) | Dekton Aura Bookmatch



Nar Bustamante's Dekton Fireplace Wall Design | Dekton Ariane - Kadum | © Photographer: Fred Donham | Designer: Nar Fine Carpentry, Inc.





Northwest Fireplace Centre | Manchester (United Kingdom) | Dekton Makai

Extreme heat at home must never be underestimated. Heat is present not only at the source but also within the ashes, and the often used metal cases. By taking care of the internal cladding with a heat-resistant material, we can now design a final casing with large format plates,

giving the latest looks to a functional requirement while maintaining the physical, mechanical and thermal properties. Whole pieces over 3m long, large horizontal strips with just 2mm joints are now possible thanks to pieces cut with the maximum accuracy and no warping.

## TECHNICAL INFORMATION

# DEKTON TECHNICAL INFORMATION

Technical Information According to STANDARD EN-14411

## Family I

Domoos, Sirius, Sirocco, Kadum, Strato, Keranium, Ananké, Vegha, Ventus, Korus, Galema, Keon, Kelya, Borea, Valterra, Aldem, Odin... **XGLOSS:** Spectra, Lumina, Blaze, Splendor...

## Family III

Danae, Irok, Edora, Makai, Blanc Concrete, Gada, Bento, Aged Timber, Sterling, Sarey, Dove...

## Family II

Zenith, Aura, Ariane, Kairos, Entzo, Aura I 5... **XGLOSS:** Halo, Fiord, Tundra, Glacier...

## Family IV

Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Moisture expansion	EN ISO 10545-10	Expansion max	mm/m	0.1	0.1	0.1	0.1
		Expansion mid	mm/m	0.0	0.0	0.0	0.1
Flexural tensile strength or modulus of rupture	EN ISO 10545-4	Average flexural resistance	N/mm <sup>2</sup>	60	67	59	60
		Average break load	N	2548	2313	2356	2568
		Average break strength	N	14966	13559	13818	15620
Water absorption, apparent porosity, density	EN ISO 10545-3	Water absorption by boiling	%	0.1	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 <sup>3</sup>	2.51	2.61	2.53	2.44
		Apparent density	g/cm <sup>3</sup>	2.50	2.61	2.52	2.44
		Resistance to deep abrasion	EN ISO 10545-6	Wear Volume	mm <sup>3</sup>	125	106
Dimension and surface quality	EN ISO 10545-2	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
		Rectangularity	%	0.07/-0.16	0.04/-0.09	0.21/-0.21	0.08/-0.08
		Centre Curvature	%	0.04/-0.08	-0.06	-0.06	-0.07
		Side Curvature	%	0.06/-0.06	0.02/-0.04	0.02/-0.04	0.02/-0.02
		Warpage	%	-0.11	-0.07	-0.06	-0.04
		Surface Quality	%	100	100	100	100

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## Family IV

Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Impact resistance	EN ISO 10545-5	Coefficient of restitution (COR)	-	0.85	0.85	0.85	0.92
Determination of linear thermal expansion	EN ISO 10545-8	Expansion 30-100°C	°C <sup>-1</sup>	6.5·10 <sup>-6</sup>	5.1·10 <sup>-6</sup>	6.3·10 <sup>-6</sup>	5.8·10 <sup>-6</sup>
Thermal shock resistance	EN ISO 10545-9	Damage	-	No affected	No affected	No affected	No affected
		CINH+ / Cleaning products	Type	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		Bleach/swimming pool salts	Type	UA (no damage)	UA (no damage)	UA (no damage)	UA (no damage)
		HCl (3% v/v)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Citric acid (100 g/l)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		KOH (30 g/l)	Type	ULA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		HCl (18%)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Lactic acid (5%)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
Resistance to staining	EN ISO 10545-14	KOH (100 g/l)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
		Green agent	Type	5	5	5	5
		Red agent	Type	-	-	-	-
		Iodine (solution)	Type	5	5	5	5
		Olive Oil	Type	5	5	5	5

# DEKTON TECHNICAL INFORMATION

Technical Information According to ASTM Standard  
(American Society for Testing and Materials)

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Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Moisture expansion	ASTM C370	Average moisture expansion	%	0.02	0.005	0.004	0,02
Breaking strength	ASTM C648	Average breaking strength	lbf	3,963	4,896	3,932	1194
Flexural properties	ASTM C674	Average modulus of rupture	psi	10,828	13,997	9,005	8023
Water absorption, bulk density, apparent porosity and apparent specific gravity	ASTM C373	Average water absorption	%	0.03 (Impervious)	0.05 (Impervious)	0.01 (Impervious)	0,0 (Impervious)
Static coefficient of friction (skid resistance)	ASTM C1028	static coef. Friction dry	-	0.80	0.77	0.77	0,76
		static coef. Friction wet	-	0.66	0.56	0.69	0,61
Wet dynamic coefficient of friction (DCOF)	ANSI A137.1 section 9.6.1	Average DCOF	-	0.57	*	0.47	*
Relative resistance to wear (Taber abrasion)	STM C501	Average Abrasive Wear Index		182,2	337	240	239
Thermal shock resistance	ASTM C484	Defects	-	No defects	No defects	No defects	No defects
Bond strength	ASTM C482	Average bond strength	psi	423	437	357	454
Common Household and cleaning chemicals							
Resistance to chemical substances	ASTM C650	Acetic acid, 3% (v/v)	-	No affected	No affected	No affected	No affected
		Acetic acid, 10% (v/v)	-	No affected	No affected	No affected	No affected
		Ammonium chloride, 100 g/L	-	No affected	No affected	No affected	No affected
		Citric acid solution, 30 g/L	-	No affected	No affected	No affected	No affected
		Citric acid solution, 100 g/L	-	No affected	No affected	No affected	No affected
		Lactic acid, 5% (v/v)	-	No affected	No affected	No affected	No affected
		Phosphoric acid, 3% (v/v)	-	No affected	No affected	No affected	No affected
		Phosphoric acid, 10% (v/v)	-	No affected	No affected	No affected	No affected
		Sulfamic acid, 30 g/L	-	No affected	No affected	No affected	No affected
		Sulfamic acid, 100 g/L	-	No affected	No affected	No affected	No affected

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## Family IV

Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV		
Swimming pool chemicals									
Resistance to chemical substances	ASTM C650	Sodium hypochlorite solution, 20 mg/L		No affected	No affected	No affected	No affected		
		Acids and bases							
		Hydrochloric acid solution, 3% (v/v)		No affected	No affected	No affected	No affected		
		Hydrochloric acid solution, 18% (v/v)		No affected	No affected	No affected	No affected		
Absorption and bulk gravity	ASTM C97	Potassium hydroxide, 30 g/L		No affected	No affected	No affected	No affected		
		Potassium hydroxide, 100 g/L		No affected	No affected	No affected	No affected		
Modulus of rupture	ASTM C99	Average weight percent absorption	%	0.02	0.04	0.02	0,04		
		Average density	lb/ft <sup>3</sup>	156	160.63	157.6	152,7		
Flexural strength	ASTM C880	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	*		
Compressive strength	STM C170	Average flexural strength dry conditions	psi	6,840	3,118	5,858	6068		
		Average flexural strength wet conditions	psi	6,205	4,187	5,119	6249		
Abrasion resistance	ASTM C1353	Average compressive strength dry conditions	psi	34,409	>55,000	44,882	53800		
		Average compressive strength wet conditions	psi	17,823	>55,000	40,165	58600		
Abrasion resistance	ASTM C1353	Average index of abrasion	-	349	349.48	265.8	263		

\* Test pending







**Rafa Nadal**  
Cosentino Brand Ambassador



**COSENTINO HEADQUARTERS**

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\* See specific warranty conditions.

\*\* To obtain more information about hues with NSF certificate please visit [www.nsf.org](http://www.nsf.org)