Dekton for Architectural Projects

ULTRACOMPACT SURFACES

DEKTON® by COSENTINO

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 synthesises 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

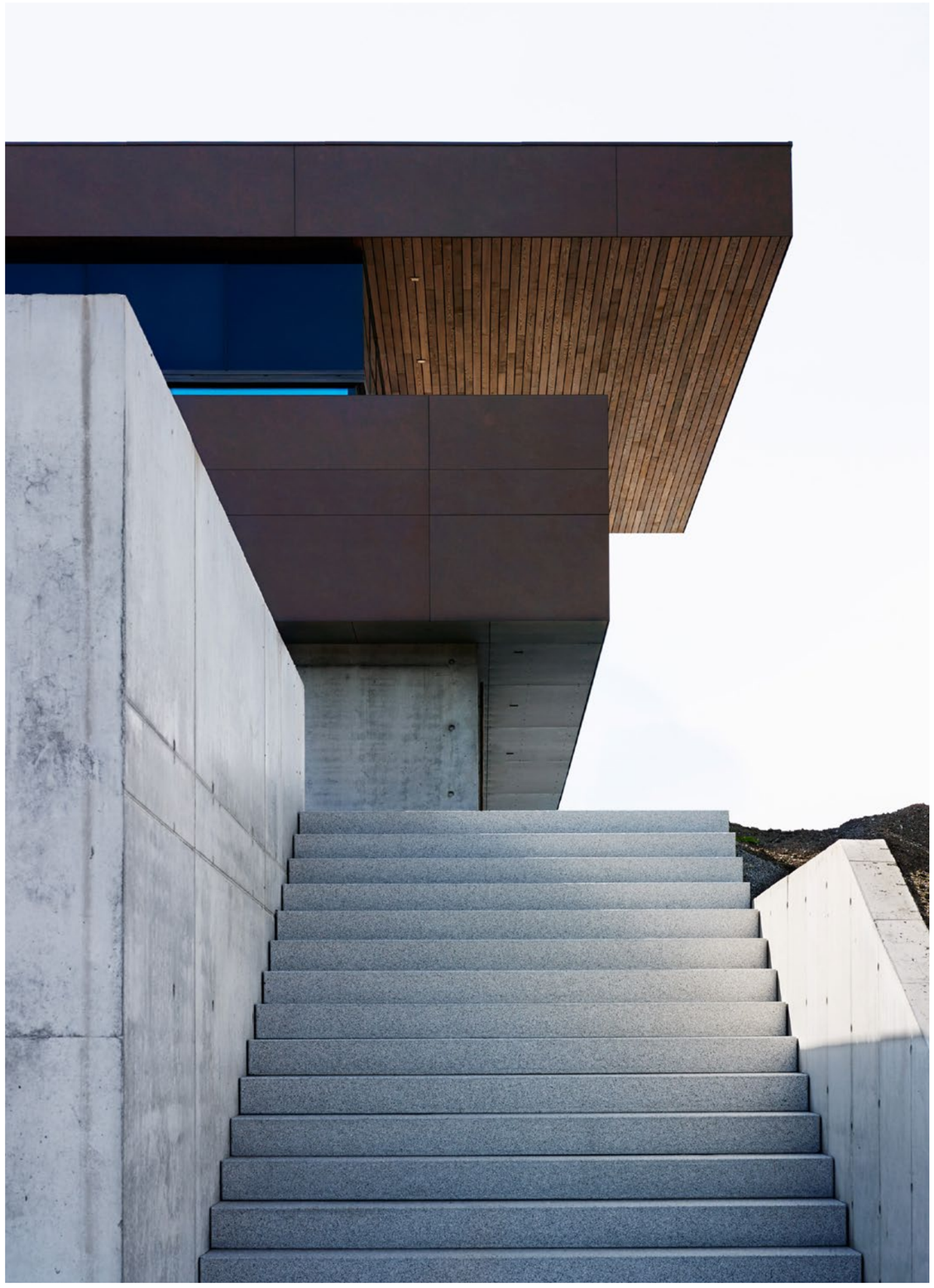
Highly UV Resistant

Resistance to Freezing and Thawing

Dimensional Stability

Cajamar | Almería (Spain) | Dekton Sirocco

Skallan Private Villa | Sweden | Dekton Kadum



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.

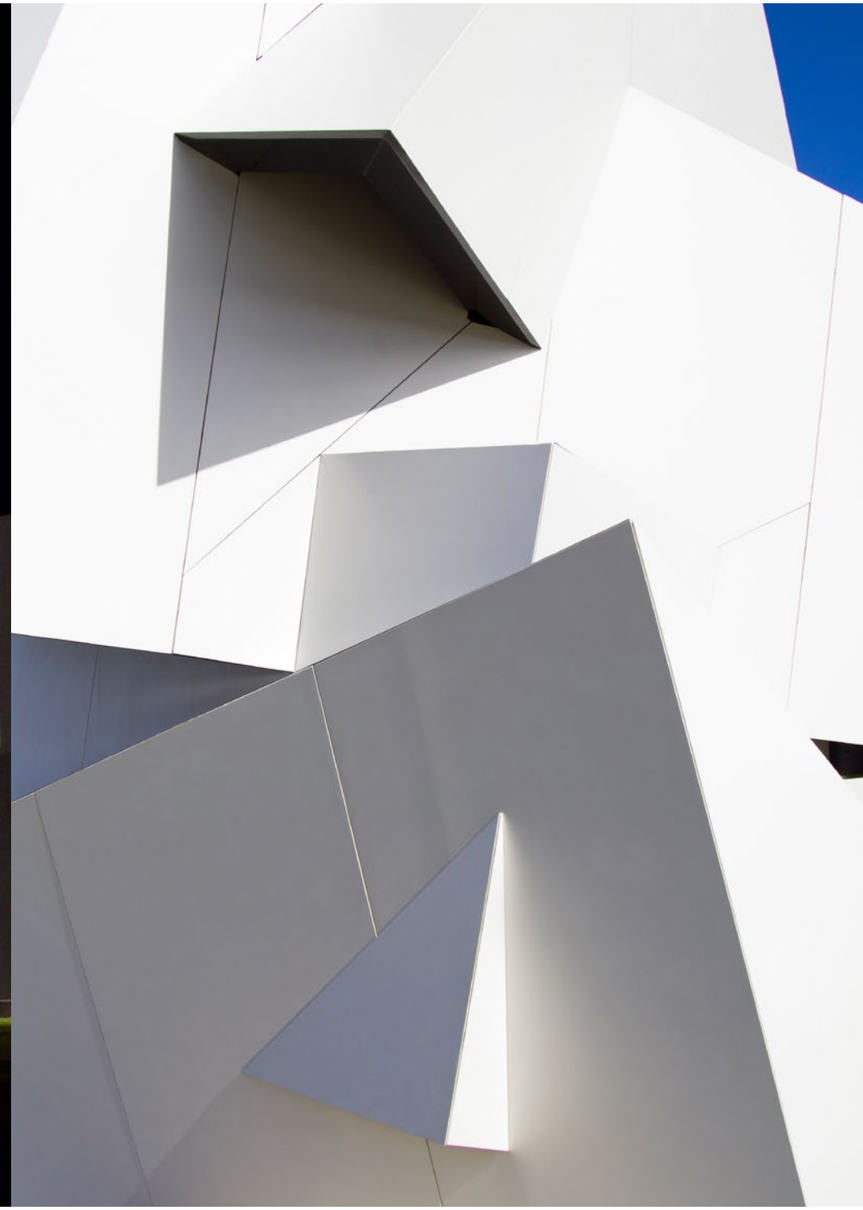
The project is thus released from formal limitations and can incorporate creative shapes, with pieces that can be up to 3m long and have slim lineal designs.

Private Home Aravaca | Madrid (Spain) | Dekton Edora

Casa Cor | Dekton Kadum - Irok | © Roberto Migotto - Carlos Piratininga

Rafa Nadal Academy | Customised Dekton Blue - Dekton Strato | © Fernando Alda

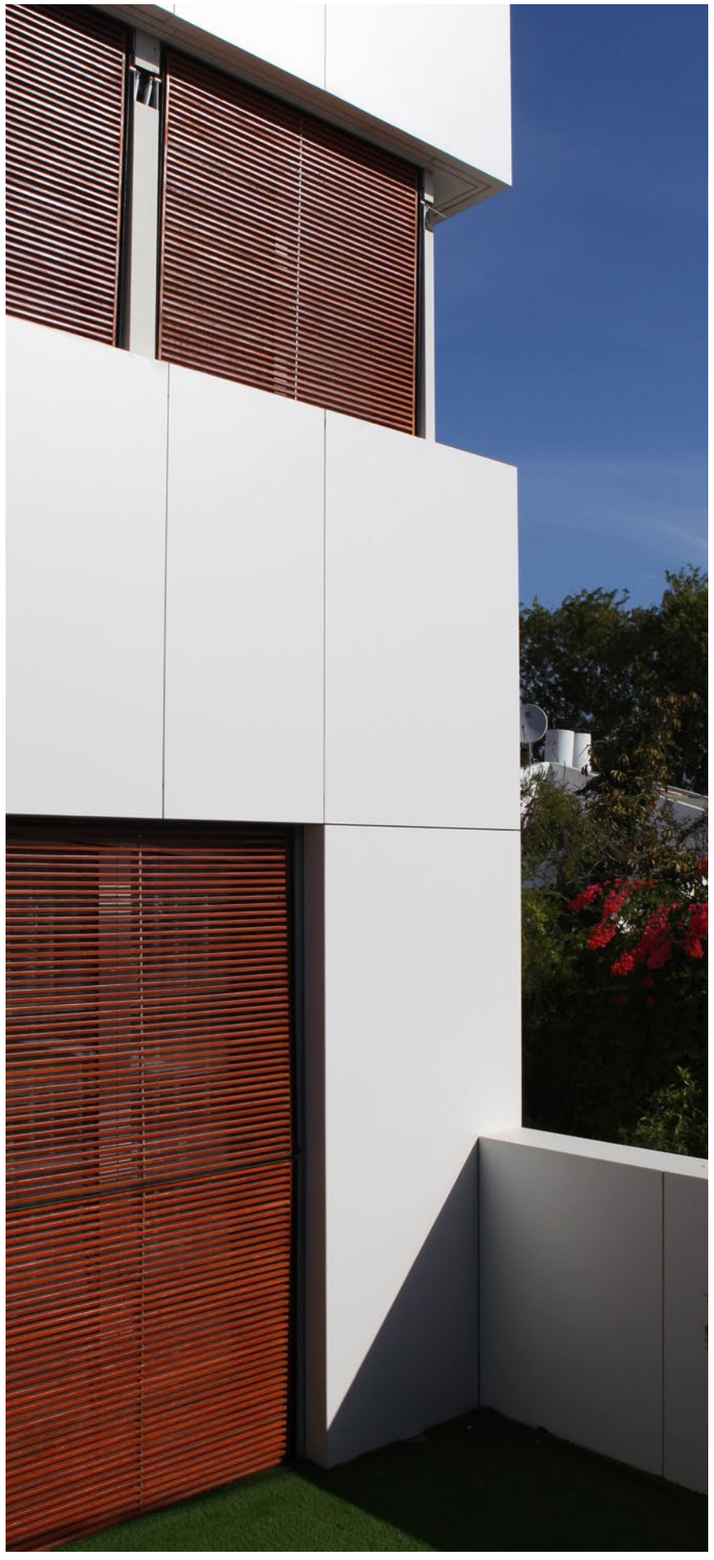

COSENTINO



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.

Lefties | Leon (Spain) | Dekton Zenith

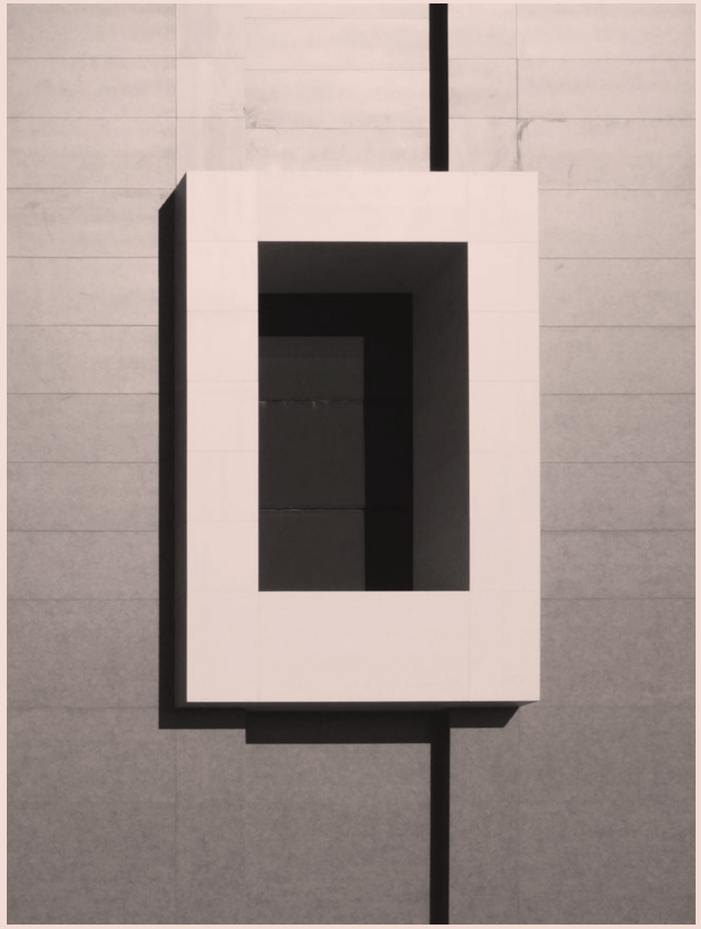
Archway | London (United Kingdom) | Dekton Danae



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



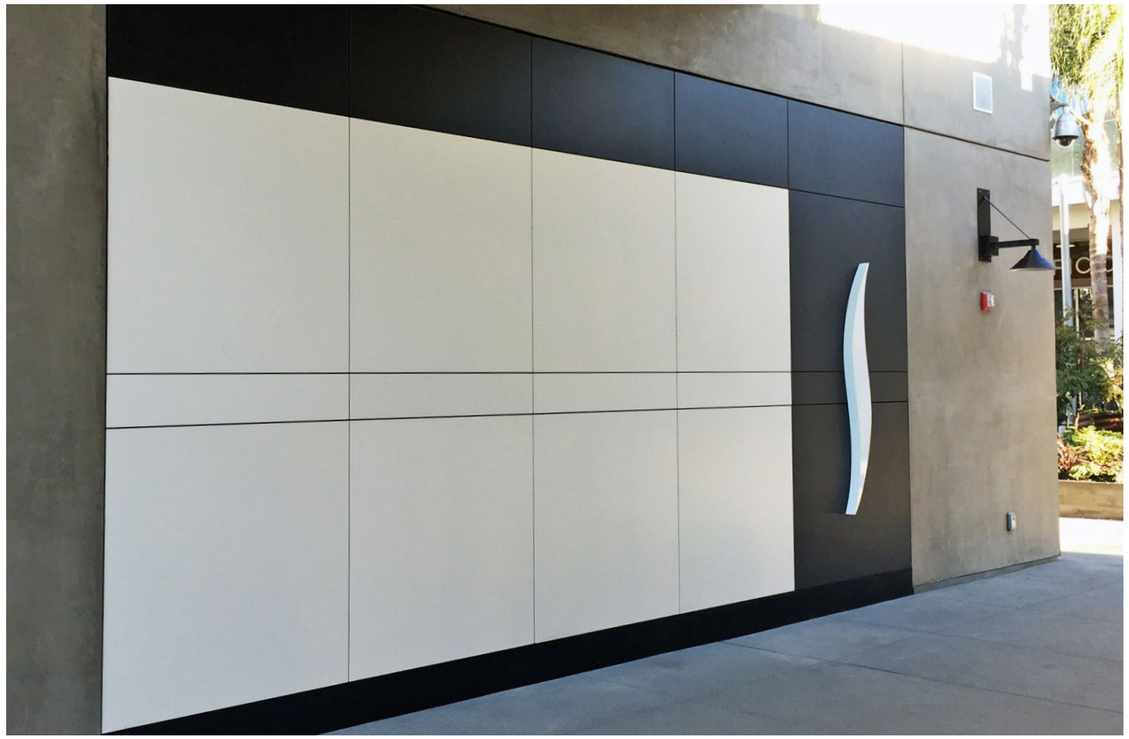
Dimensional Stability

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

House in Alicante | Alicante (Spain) | Dekton Strato

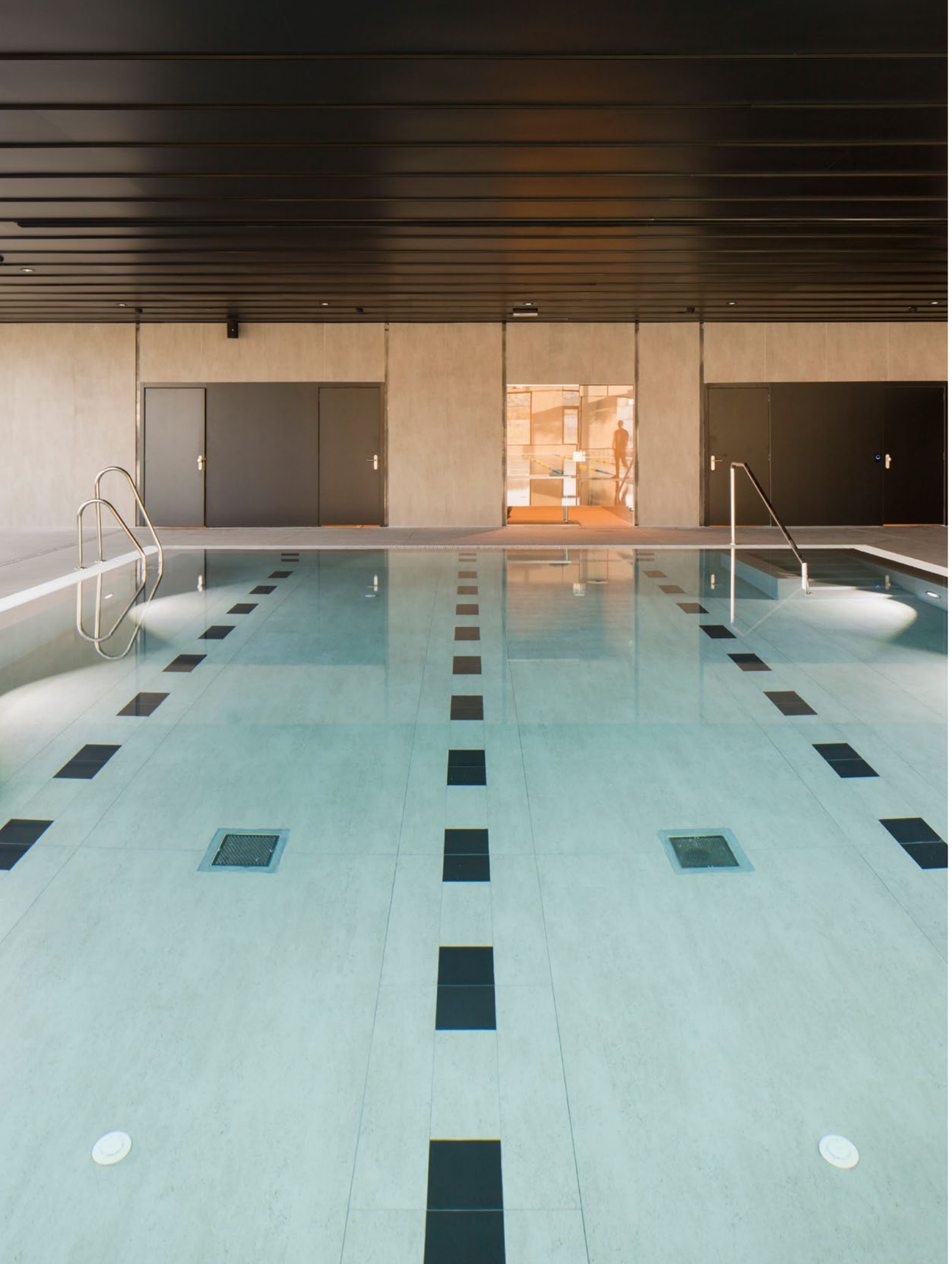
Swimming Pools

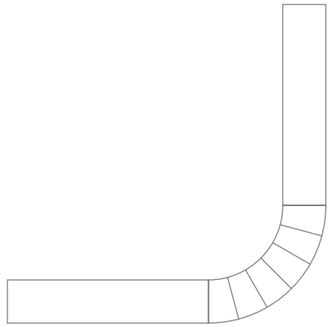
Resistant to Stains

High Resistance to Hydrolysis

Low Water Absorption

Dimensional Stability



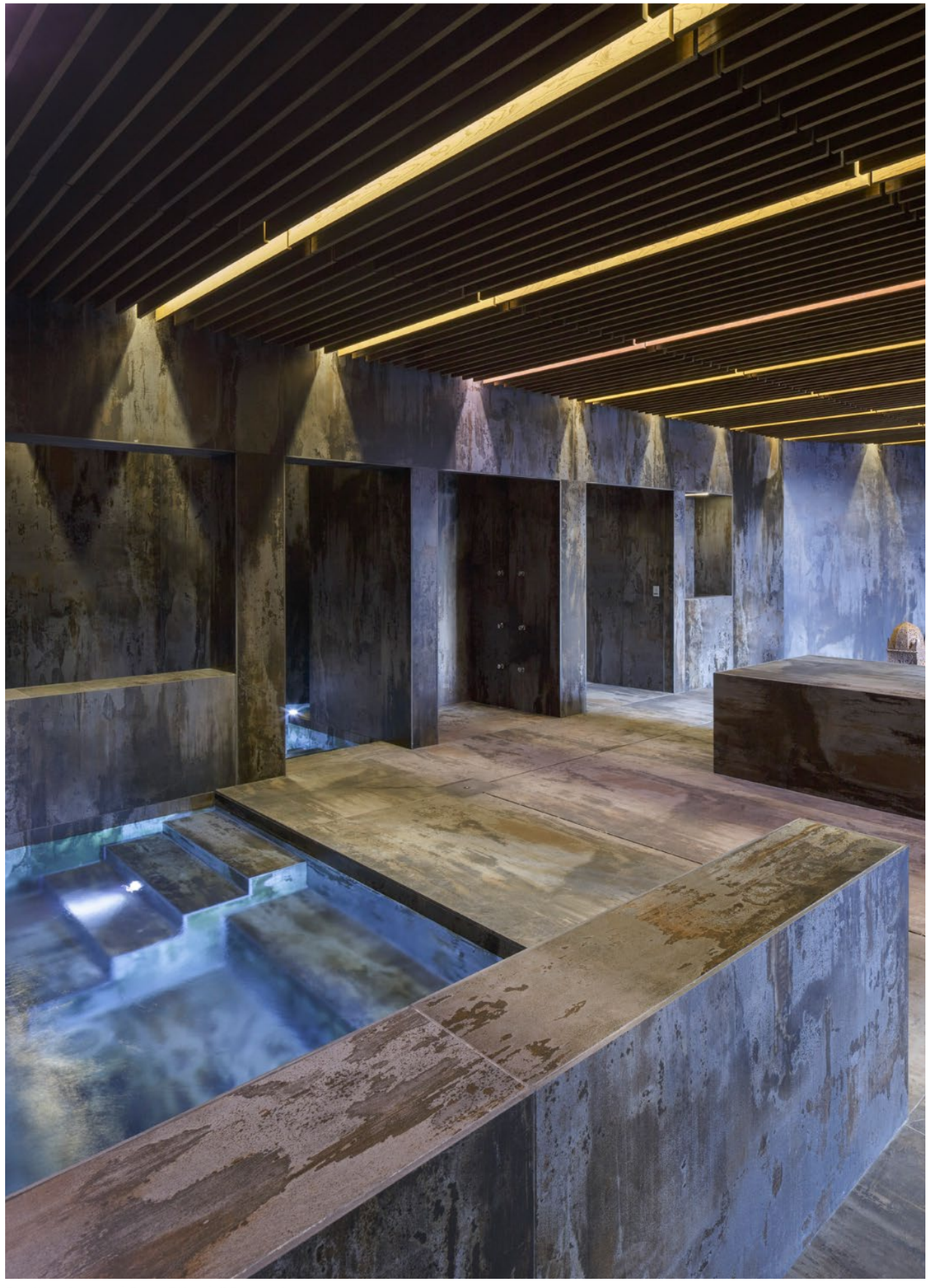


We all want to dive in when we see a swimming pool in summer, with its small tiles in a spotless ocean blue. But we all forget (or ignore), that the same swimming pool becomes a nightmare for the owners in spring and autumn, fighting against the green flecks that cling to the joints.

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.

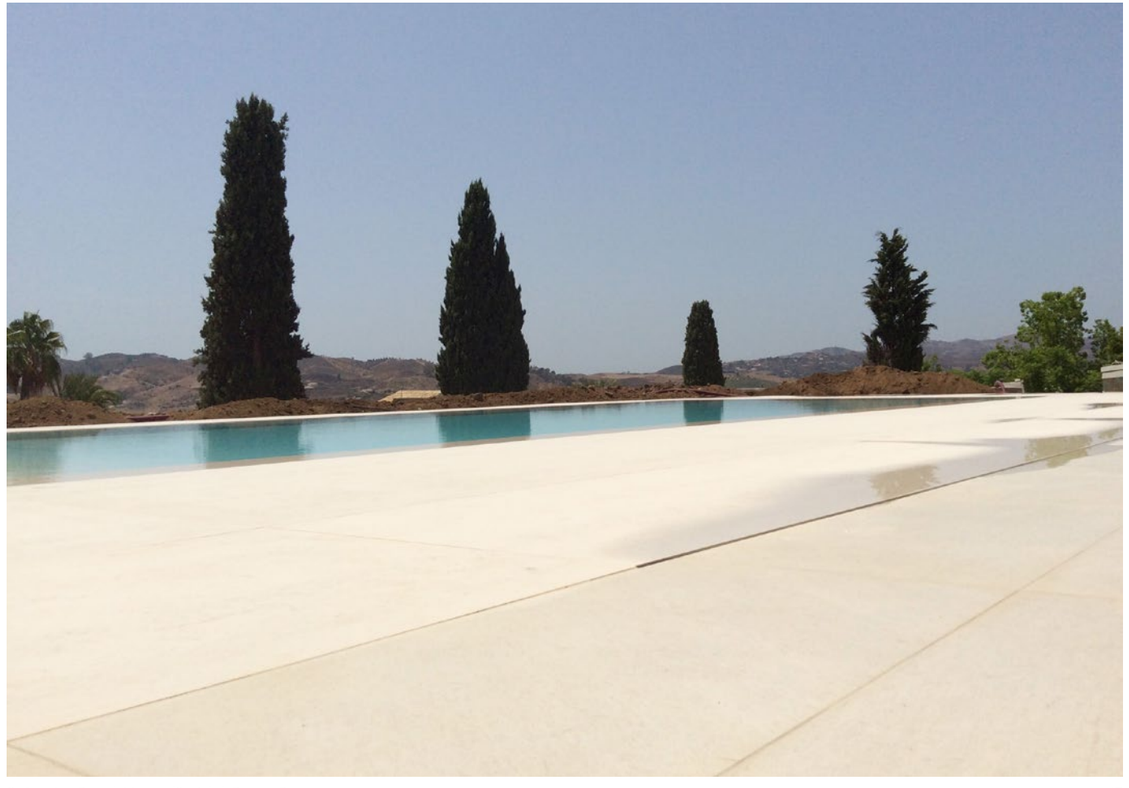
And what about the slipperiness of a shower tray or cladding from floor to ceiling with the same material and different textures? Before, that was a limitation. Not anymore.

Rafa Nadal Academy | Dekton Keon | © Fernando Alda



Rafa Nadal Academy | Dekton Trilium | © Fernando Alda

Hillcrest | California (USA) | Dekton Zenith



Swimming Pool | Málaga (Spain) | Dekton Danae

Rafa Nadal Academy | Dekton Keon | © Fernando Alda

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

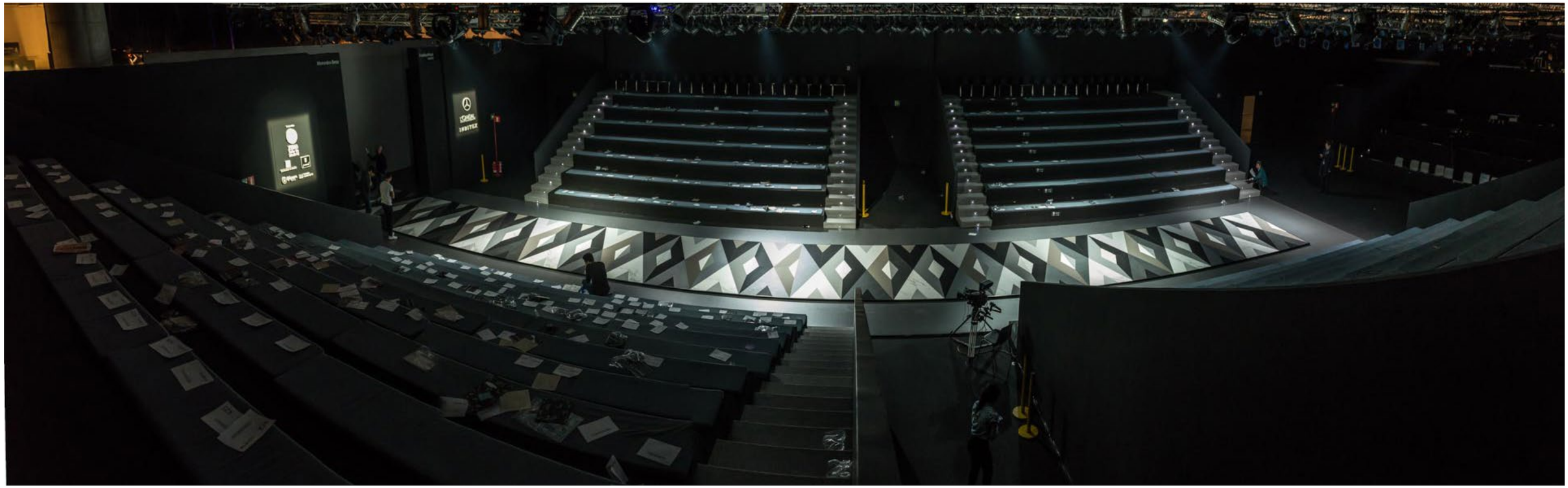
Superior Mechanical Resistance

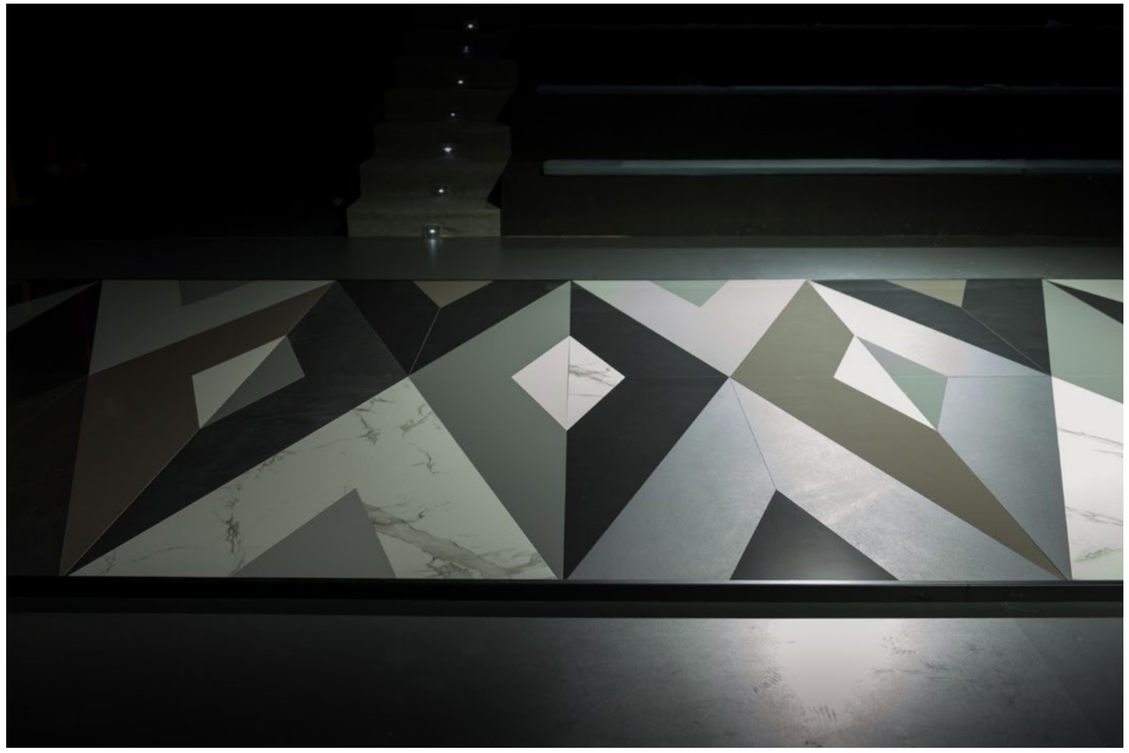
Dimensional Stability

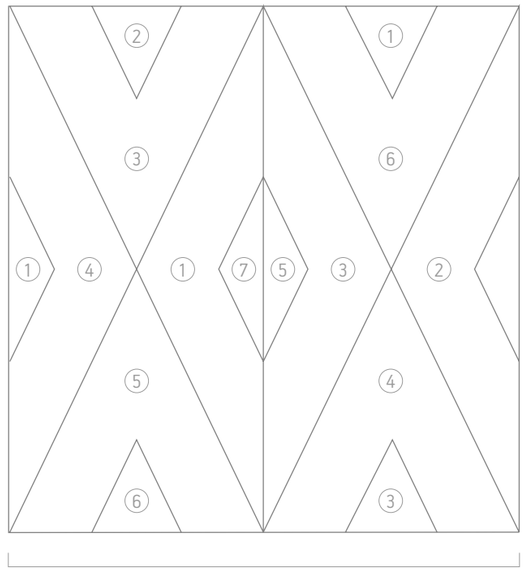
Resistant to Stains

Microsoft Headquarter | Haifa (Israel) | Dekton Zenith - Domoos | © Lior Teitler

Mercedes Benz Fashion Week | Madrid (Spain) | Dekton Spectra - Splendor - Blaze - Halo - Lumina - Kelya - Aura | © Nivel Arte







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?

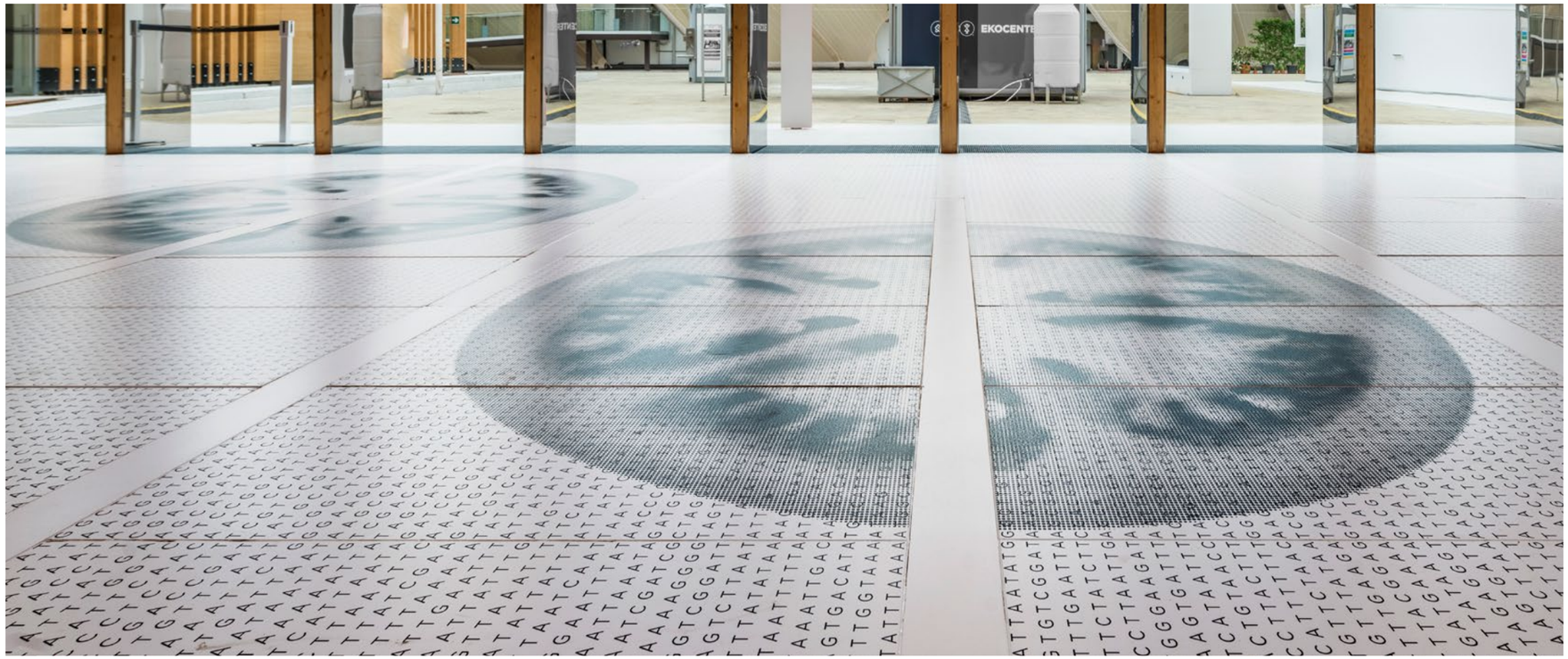
Rules have changed. We now have everything that our imagination dares to create, at our fingertips.

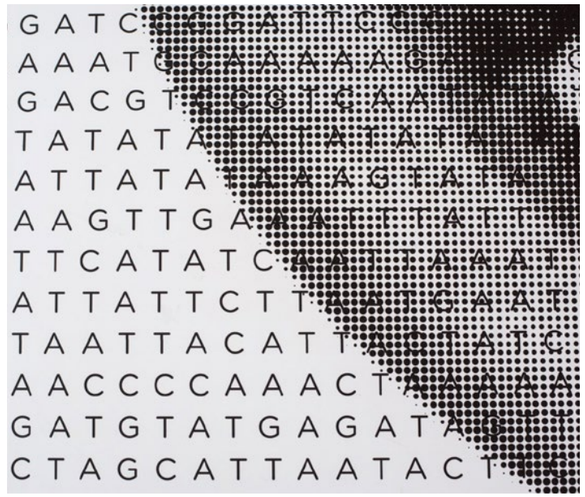
Apartment Conde de Aranda | Madrid (Spain) | Dekton Ariane | © Raquel Elliot

Casa Cor | Dekton Kadum | © Brunette Fraccaroli

White House | Haifa (Israel) | Dekton Aura Bookmatch

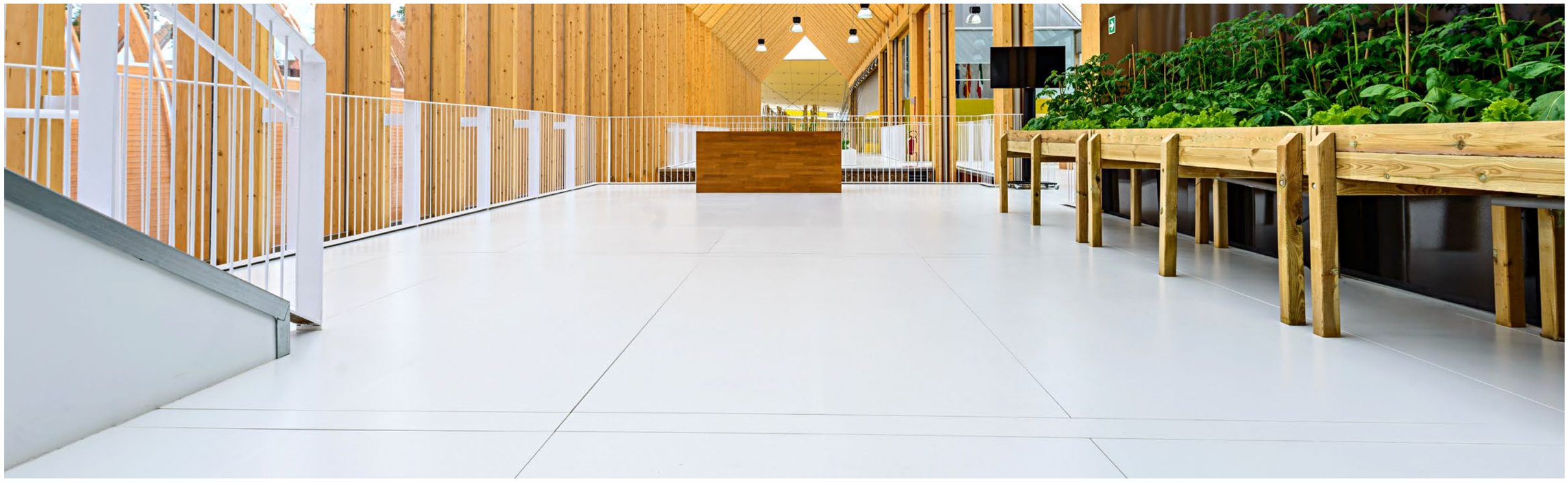
Spain Pavilion Expo Milano | Customised Dekton Zenith using inkjet printing technology



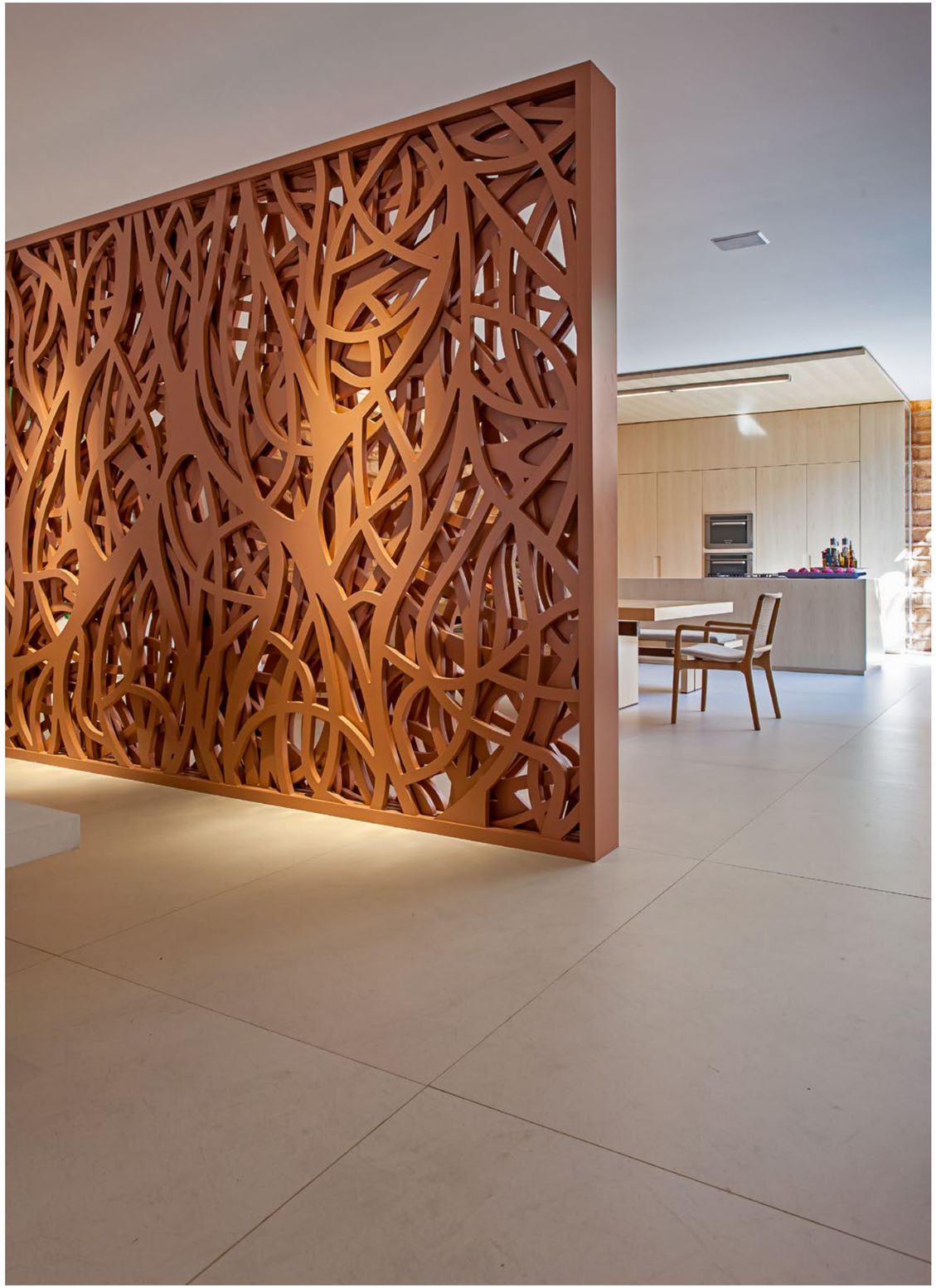


Where are the limits? When talking about ultracompact surfaces, the limits are in the creativity it portrays. In prehistoric times, cavern walls were used to draw the working plan (e.g. Altamira).

In the 21st century, we can draw the detailed structure of tomatoes on a mosaic floor - slab by slab, thousands of them, each of them with a different graphic. Everything over a material which is always the same yet versatile in so many ways, for instance, through inkjet.



Baku Heydar Aliyev International Airport | Baku (Azerbaijan) | Dekton Domoos - Two Customised Dekton Colors



Casa Cor | Dekton Irok | © Carlos Piratininga

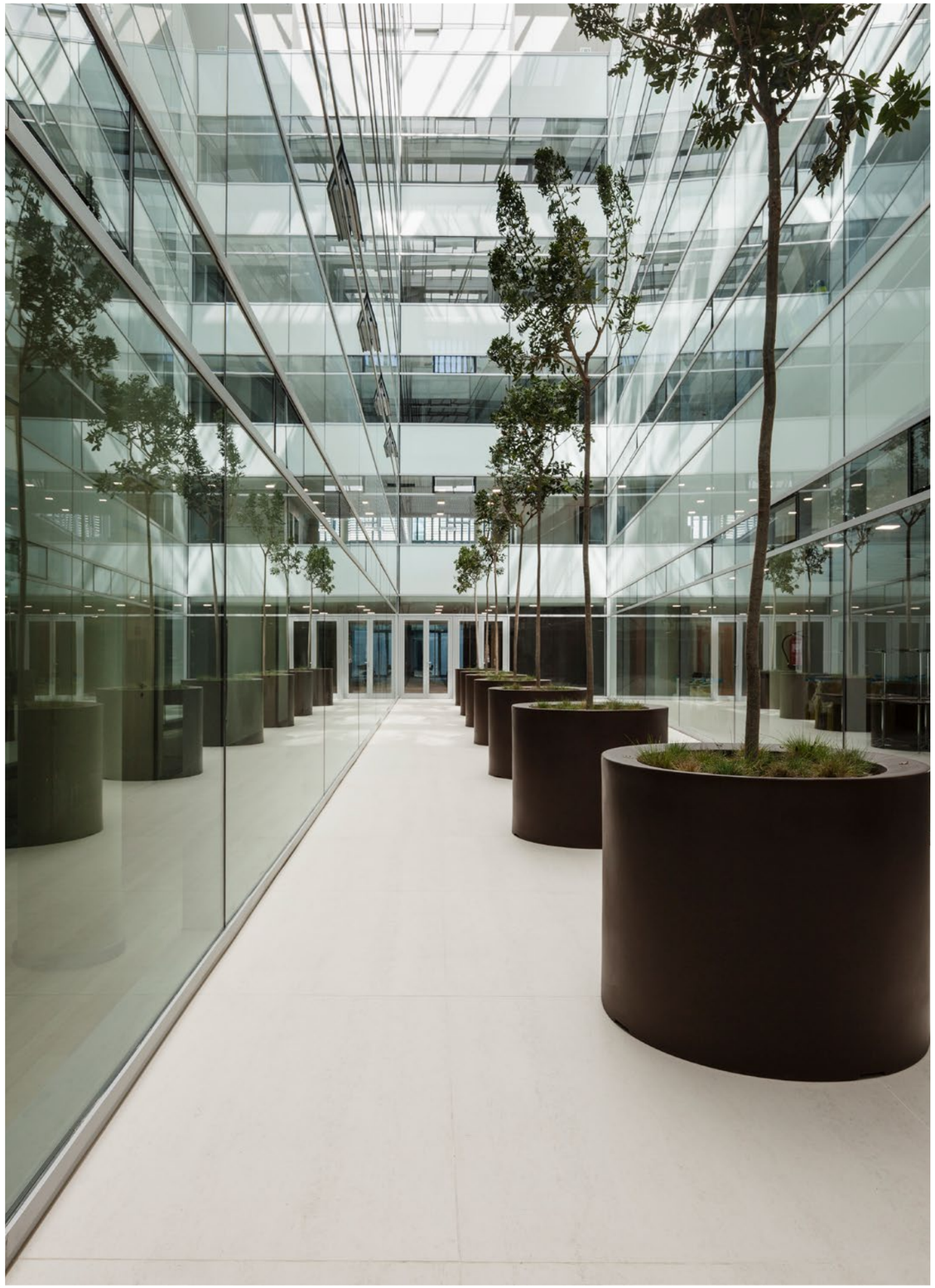
Dressing Room | Dekton Aura | © Architect Carico Dumont - Jomar Bragança

Dani García Restaurant | Marbella (Spain) | Dekton Keranium

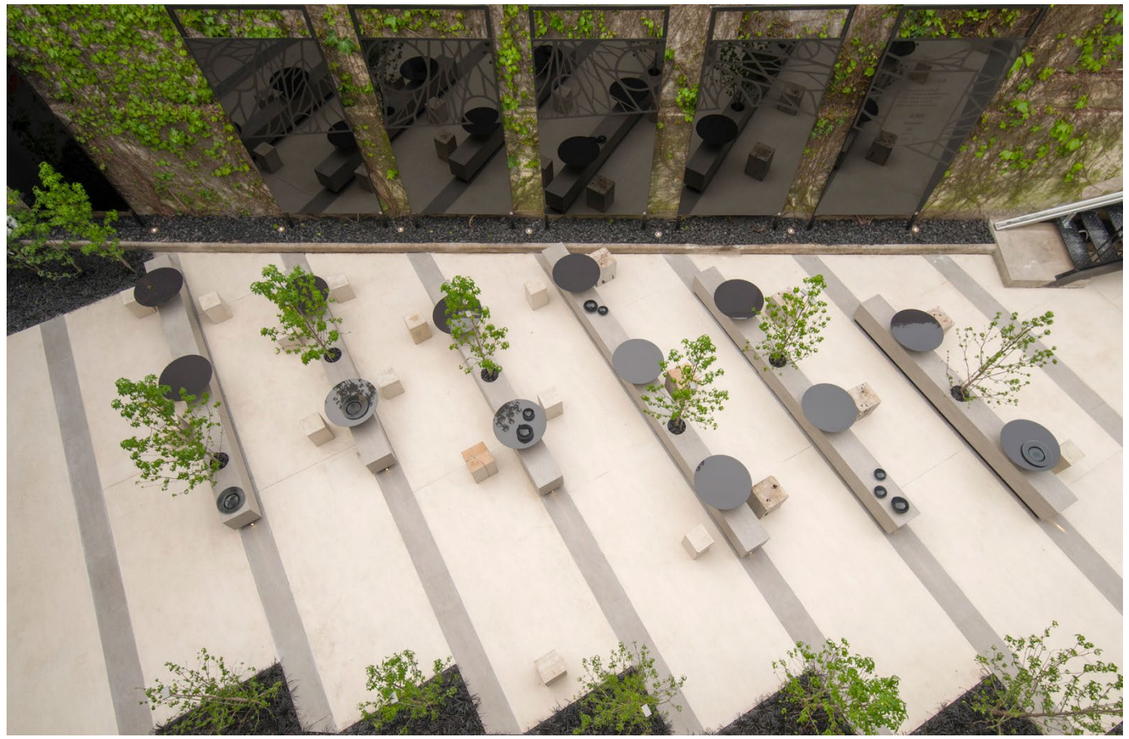
Casa Cor | Dekton Sirius | © Sig Bergamin

Okami Restaurant | Málaga (Spain) | Dekton Domoos

Rafa Nadal Academy | Dekton Strato Grip Finished | © Fernando Alda



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

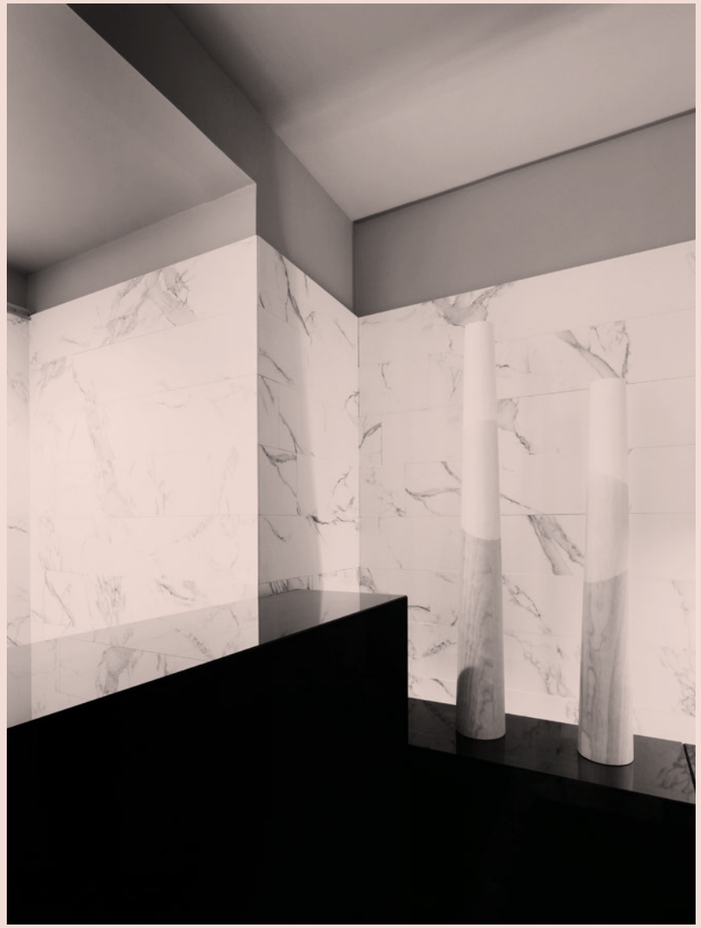
Scratch Resistant

Rafa Nadal Academy | Dekton Strato | © Fernando Alda

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

London Loft - Salone Mobile Milano 2016 | Dekton Trilium | © Interior Design: Cecconi Simone

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

Parisian Apartment - Salone Mobile Milano 2016 | Dekton Zenith Inkjet | © Interior Design: Cecconi Simone

Indoor Countertops

Maximum Resistance to Heat

Low Water Absorption

Scratch Resistant

Resistant to Stains

Bürgisser AG shop | Schreinerei (Switzerland) | Dekton Trilium | © Megan Swann

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

Casa Cor | Dekton Kadum | © MCA Studio

Private House | Dekton Entzo | © Ricardo Santonja

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

Private House | Dekton Kadum | © Luis Diaz Diaz

ACE Seguros | Dekton Danae | © Architect Dante Della Manna

Casa Cor | Dekton Zenith | © Marilia Pellegrini - Carlos Piratininga

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

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

Casa Cor | Dekton Keranium | © Carlos Piratininga

Citrus Heights | California (USA) | Dekton Danae | © Annette Starkey

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

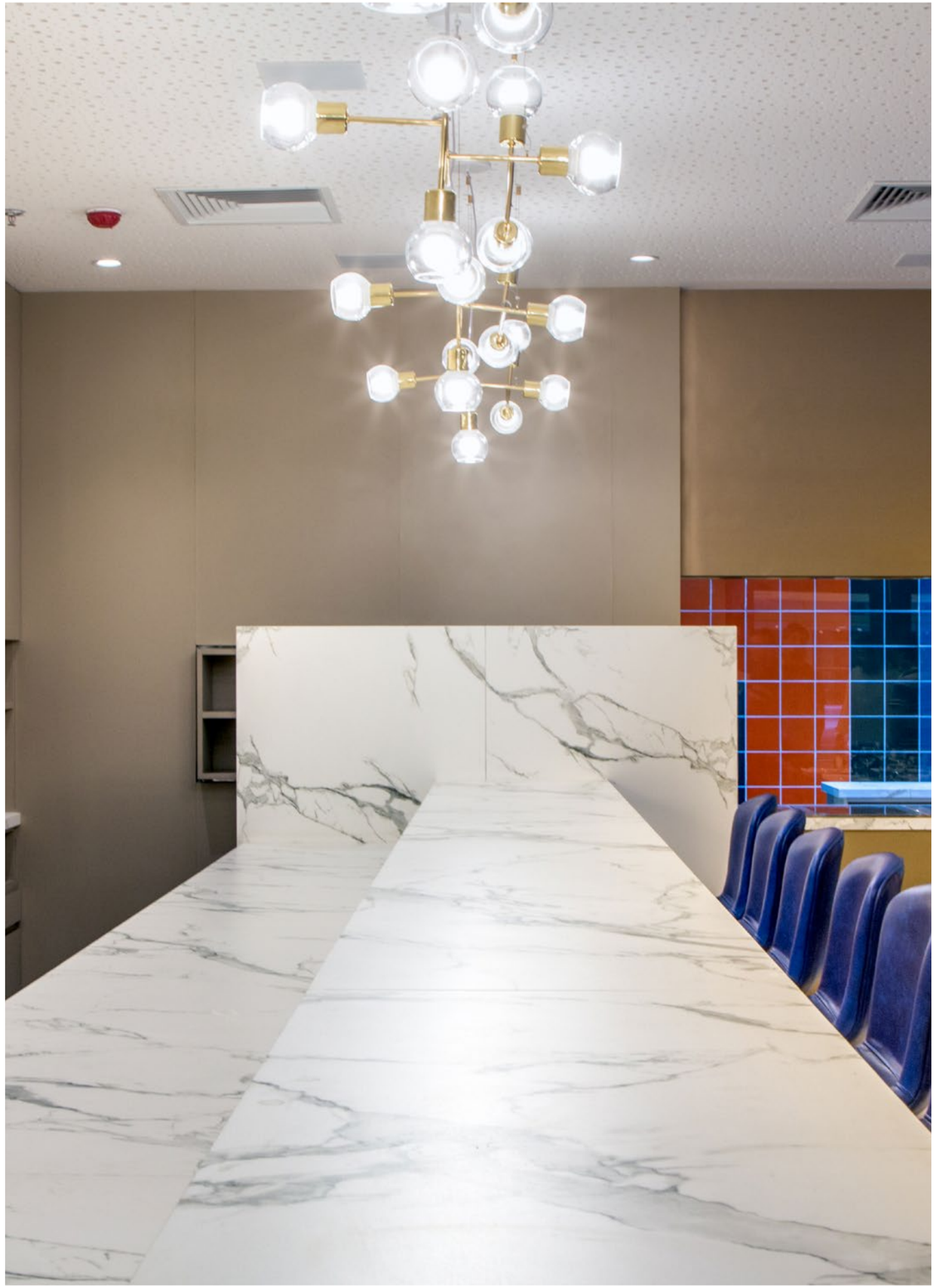
Superior Mechanical Resistance

Resistant to Abrasion

Restaurant | Dekton Keranium | © MCA Studio

Casa Cor | Dekton Vegha | © Eduardo Liotti

Okami Restaurant | Málaga (Spain) | Dekton Domoos



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

Casa Cor | Dekton Domoos | © Sig Bergamin

Food **Services**

Maximum Resistance to Heat

Fireproof Material

Scratch Resistant

Resistant to Abrasion

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

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

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.

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

Diverxo Restaurant | Madrid (España) | Dekton Domoos

Diverxo Restaurant | Madrid (España) | Dekton Domoos

Restaurant André | Singapore (Singapore) | Dekton Galema

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

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

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

Fireplace Surrounds

Fireproof Material

Superior Mechanical Resistance

Dimensional Stability

Maximum Resistance to Heat

Casa Cor | Dekton Keon | © Edgard Cesar

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.

Nar Fine Carpentry's Dekton Sail Lounge | Dekton Aura Bookmatch - Trilium | © 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 II

Zenith, Aura, Ariane, Kairos, Entzo, Aura15... **XGLOSS:** Halo, Fiord, Tundra, Glacier...

Family III

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

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/mm²	60	67	59	60
		Average break load	N	2548	2313	2356	2568
		Average break strengh	N	14966	13559	13818	15620
Water absorption, apparent porosity, density	EN ISO 10545-3	Water absortion by boiling	%	0.1	0.1	0.1	0.1
		Water absortion by vacuum	%	0.1	0.1	0.1	0.1
		Open porosity	%	0.2	0.2	0.2	0.2
		Aparent relative density	g/cm³	2.51	2.61	2.53	2.44
		Aparent density	g/cm³	2.50	2.61	2.52	2.44
Resistance to deep abrasion	EN ISO 10545-6	Wear Volume	mm³	125	106	115	119
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 termal expansion	EN ISO 10545-8	Expansion 30-100ºC	$ºC^{-1}$	$6.5 \cdot 10^{-6}$	$5.1 \cdot 10^{-6}$	$6.3 \cdot 10^{-6}$	$5.8 \cdot 10^{-6}$
Thermal shock resistance	EN ISO 10545-9	Damage	-	No affected	No affected	No affected	No affected
Resistance to chemicals	EN ISO 10545-13	$ClNH_4$/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)
		KOH (100 g/l)	Type	UHA (no damage)	ULA (no damage)	ULA (no damage)	ULA (no damage)
Resistance to staining	EN ISO 10545-14	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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Family IV

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 garavity	ASTM C373	Average water absorption	%	0.03 (Impervious)	0.05 (Impervious)	0.01 (Impervious)	0,0 (Imprevious)
Static coefficient of friction (skid resitance)	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 frictipn (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
Resistance to chemical substances	ASTM C650	Common Household and cleaning chemicals					
		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

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 II

Zenith, Aura, Ariane, Kairos, Entzo, Aura15... **XGLOSS:** Halo, Fiord, Tundra, Glacier...

Family III

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

Family IV

Trilium...

TEST	STANDARD	DETERMINATION	UD	FAMILY I	FAMILY II	FAMILY III	FAMILY IV
Resistance to chemical substances	ASTM C650	Swimming pool chemicals					
		Sodium hypoclorite 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
		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
Absorption and bulk gravity	ASTM C97	Average weight percent absorption	%	0.02	0.04	0.02	0,04
		Average density	lb/ft3	156	160.63	157.6	152,7
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	6068
		Average flexural strength wet conditions	psi	6,205	4,187	5,119	6249
Compressive strength	STM C170	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
Abrassion resistance	ASTM C1353	Average index of abrassion	-	349	349.48	265.8	263

* Test pending

Rafa Nadal
Cosentino Brand Ambassador

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* See specific warranty conditions.
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