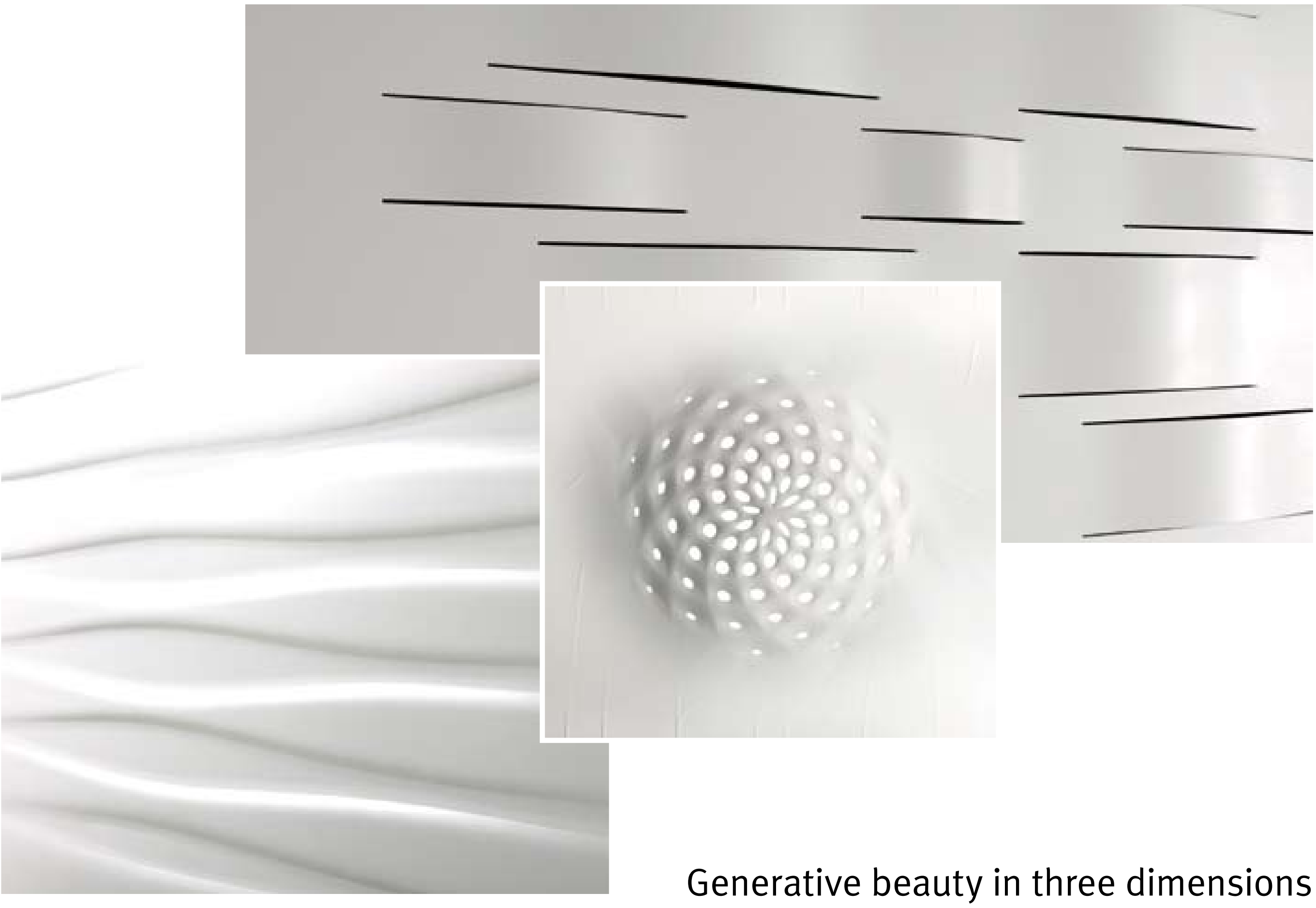
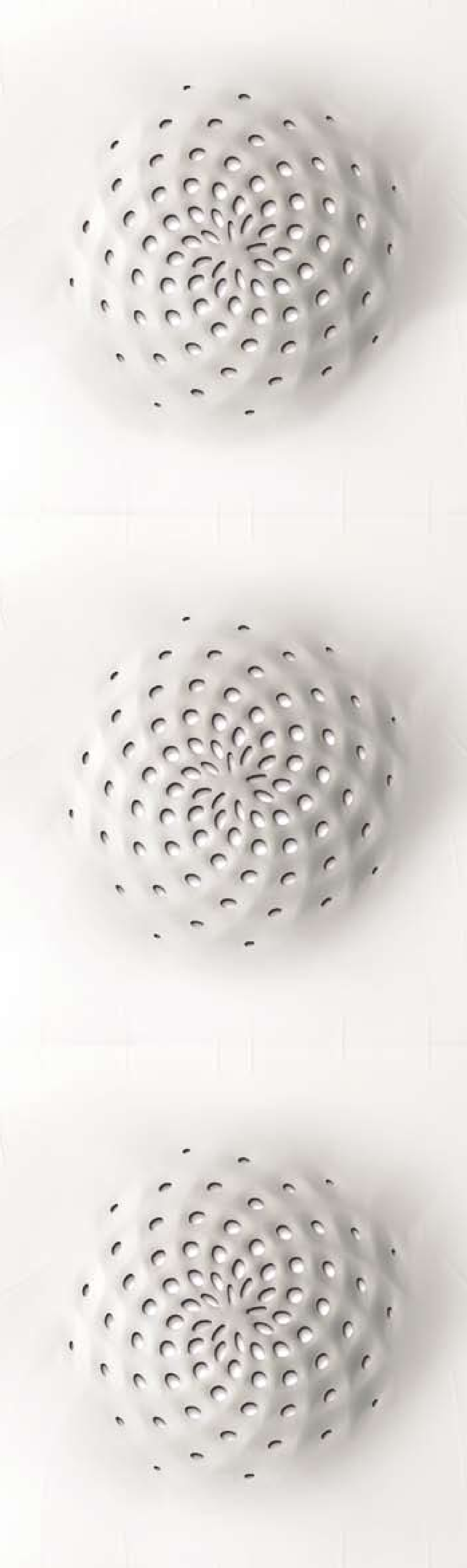
DuPont™ Corian®
3D Math series



Generative beauty in three dimensions

www.3D.corian.com

corian®



DuPont™ Corian®
3D Math series

The first materialization of the “3D” collection is the “Math” series, including extremely elegant, surprising and creative three-dimensional patterns inspired by the theories of famous mathematicians and from mathematical functions.

New custom decorative solutions for interior cladding applications now available to architects and designers.

Architects and designers are the key to a seamless link between nature, technology and aesthetics, for both interiors and exteriors. Long-lasting, hygienic, durable and elegant, the three-dimensional formability of DuPont™ Corian® has been freeing innovative artistic minds for over 40 years.

The fabrication process used for the production of the panels blends advanced geometry manipulation software tools with a versatile and highly efficient high pressure compression moulding technique.

The “3D” collection is based on a new technology that enables DuPont to easily apply custom on-demand sophisticated and complex three-dimensional patterns on DuPont™ Corian® for interior vertical applications.

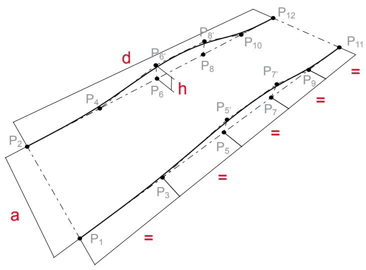
Please note, the minimum order quantity for each design is 10.

The rules of **beauty**

Corian® 3D – Math Collection - 6 models

FOURIER

The shape of the panel is the result of a process of subdivision of the surface into bands or ribbons of variable random height. Every ribbon is charaterised by its own sinusoidal path based on a random span distance and height. The final panel appears like the result of applied vibrations forces that enliven the single surfaces.

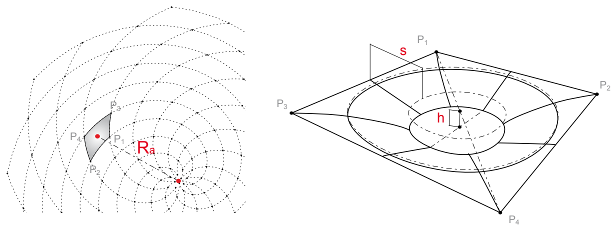


a random ribbon height
d random ribbon span
h random vertex height

Dimensions (L x H): 2485 x 760 mm
Thickness: 12 mm

PHYLLOTAXIS

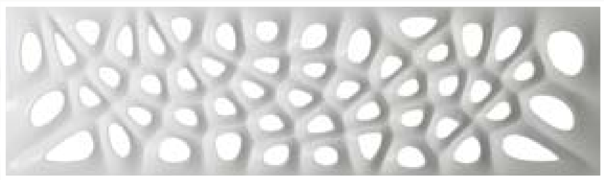
The shape of the panel is inspired to the famous Fibonacci spiral and Phyllotaxis pattern, based on two sets of spirals revolving in opposite directions. The shapes emerging from this intersection are the base for a series of inner curves scaled and moved proportionally to the inverse of their distance from the centre of the spiral. The resultant surface looks like a flower bas-relief.



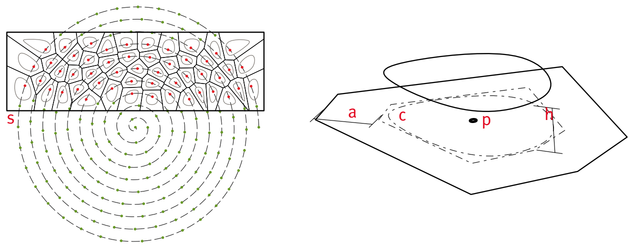
Ra cell distance from center
s scale based on inverse of Ra
h cell height based on inverse of Ra

Dimensions (L x H): 700 x 700 mm
Thickness: 6 mm

VORONOI



The shape of the panel is the result of a Voronoi diagram based on an array of points subdivided from a spiral. Every single Voronoi cell boundary generates another offset and interpolated curve, shifted at a parametric height. So the original Voronoi cell contour and curves are the base for an operational patching that provides a characteristic cell tessellation.

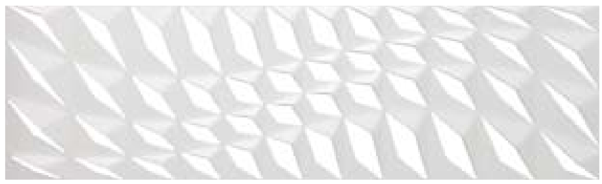


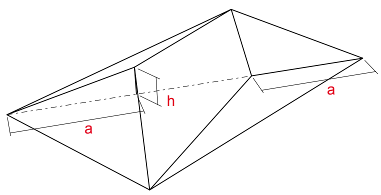
s base spiral
n number of points “p” on spiral “a” offset from boundary of cell
h maximum height of extrusion of cell
c curve created on “a” polyline vertex

Dimensions (L x H): 2450 x 720 mm
Thickness: 6 mm

GAUSS

The shape of the panel is the result of a process of subdivision, into a variable number of cells. Every single surface is like a diaphragm composed of two modular shapes. The aperture determined by these shapes is governed by the values of a fully controlled gaussian curve. One of these shapes moves into space with a distance parameter to create a sort of pocket.

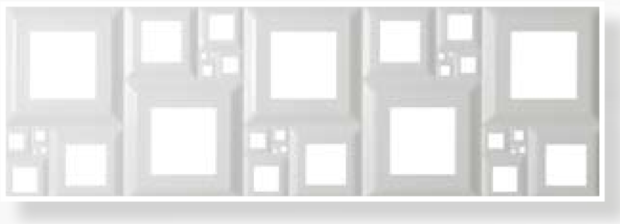




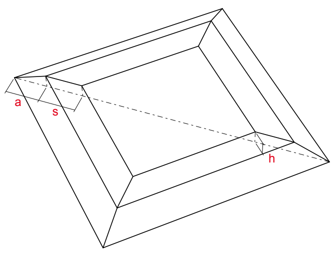
a size of occlusion of the cells controlled by gaussian curve
h height of top point of the faces

Dimensions (L x H): 2440 x 725 mm
Thickness: 12 mm

FIBONACCI



The shape of the panel is closely linked to the Fibonacci spiral path, the squares built on it and the resulting golden rectangle. Every single square is transformed into a parametric cell with a variable maximum height, taper angle and aperture size. The resulting squares materialize the proportional Fibonacci sequence onto the final shape of the panel.

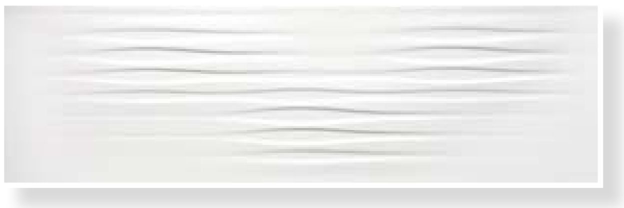


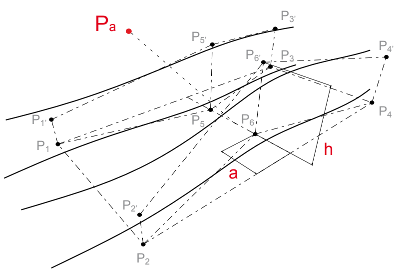
a size of the first aperture of the cell
h maximum height of extrusion of cell
s size of the second aperture of the cell

Dimensions (L x H): 2200 x 720 mm
Thickness: 6 mm

MOIRÉ

The shape of the panel is the result of a process of subdivision into a variable number of stripes. The distance of every centre of each stripe from an hypothetical point attractor governs the height and the deviation of the sinusoidal curves generating the surface. The optical result of these wave effects determines a sort of Moiré effect on the surface of the panel.





Pa attractor point
a deviation based on distance from Pa
h vertex height based on distance from Pa

Dimensions (L x H): 2450 x 750 mm
Thickness: 6 mm

QUALITY NETWORK
DuPont™
CORIAN®
SOLID SURFACES

Properties of Corian®

PROPERTY	TEST METHOD	TYPICAL RESULTS		UNITS	*
		6 mm sheet	12 mm sheet		
Density	DIN ISO 1183	1.73 – 1.76	1.68 – 1.75	g/cm^3	1
Flexural modulus	DIN EN ISO 178	8920 – 9770	8040 – 9220	MPa	1
Flexural strength	DIN EN ISO 178	49.1 – 76.4	57.1 – 74.0	MPa	1
Elongation at break	DIN EN ISO 178	0.58 – 0.94	0.76 – 0.93	%	1
Compressive strength	EN ISO 604	178 – 179	175 – 178	MPa	1
Resistance to impact (spring load)	DIN ISO 4586 T11	> 25	> 25	N	1
Resistance to impact (ball drop)	DIN ISO 4586 T12	> 120	>120	cm	1
Surface hardness (Mohs index)	DIN EN 101	2-3	2-3		1
Resistance to surface wear	DIN ISO 4586 T6	63 – 75	58 – 63	Lost weight mm^3/100 rev.	1
Resistance to boiling water-increase in weight	DIN ISO 4586 T7	0.1 – 0.7	0.1 – 0.3	%	1
Resistance to boiling water-surface change	DIN ISO 4586 T7	No visible change	No visible change		1
Dimensional stability at 20°C	DIN ISO 4586 T10	< 0.16	< 0.16	% change in length	1
Resistance to dry heat-180°C	DIN ISO 4586 T8	4-5 slight change	4-5 slight change		1
Lightfastness (Xenon arc)	DIN ISO 4586 T16	> 6	> 6	Blue wool scale	1
Anti-slip properties-with 100 µm	DIN 51130:1992-11	5.8° – do not pass R9 requirement (6° min)		° angle	2
Anti-slip properties-with 120 µm	DIN 51130:1992-11	7.6° – pass R9 requirement (6° min)		° angle	2
Anti-slip properties-with 150 µm	DIN 51130:1992-11	8.1° – pass R9 requirement (6° min)		° angle	2
Resistance to bacteria and fungi	DIN EN ISO 846	Does not support microbial growth			3
Electrostatic surface behaviour	DIN IEC 61 340-4-1		> 1×10^{12}	Ω	4

(1) test report Q IWQ MBL 733 1785-1 (for classification according to DIN EN 438 part 1 & 7) from LGA –Germany/04-2004
(2) test report BMW 0411048-03 from LGA-Germany/03-2004
(3) test report 5642219 from LGA-Germany 03/2004
(4) test report EMA-SMG-814 1131 IWQ-MBL 734 1109 from LGA-Germany/03-2004

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0800/022 35 00 (NL), ++351 227 536 900 (Portugal),
++30 22950 44020 (Greece), ++48 22 320 0900 (Poland),
++46 31 57 68 00 (Nordic Countries),
++7 495 797 22 00 (Russia),
++380 50 310 79 19 (Ukraine & Kazakhstan),
++40 31 62 04 111 (Romania, Bulgaria & Serbia),
++420 257 414 213 (Czech republic, Slovakia & Hungary),
++420 257 414 213 (Central & Eastern Europe),
++971 4 321 1530 (Pakistan, Middle East, Africa, Malta & Cyprus),
++90 212 340 0400 (Turkey, Israel & Central Asia*)

* = Azerbaijan, Turkmenistan, Uzbekistan and Kyrgyzstan

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