THE NEXT GENERATION

2019 CORKLLECTION

CORK
MEETS
GENERATIVE
DESIGN

WHAT HAPPENS WHEN YOU EXPLORE CORK THROUGH GENERATIVE DIGITAL PROCESSES? WHAT HAPPENS WHEN YOU BRING TOGETHER TECHNOLOGY, INNOVATION, AND SUSTAINABILITY? WHAT HAPPENS WHEN YOUNG CREATIVE TALENT COMES TOGETHER IN PERFECT HARMONY IN AN INDUSTRY WITH OVER 50 YEARS OF EXISTENCE? WHAT HAPPENS WHEN A BRAND DECIDES TO CREATE LOCALLY AND THINK GLOBALLY? WHAT HAPPENS WHEN A PRODUCT UNITES FORM, FUNCTION, AND AESTHETICS? GENCORK HAS DARED TO ARTICULATE MULTIPLE ELEMENTS, TECHNIQUES, PROCESSES, PEOPLE, FEELINGS, STRATEGIES AND DREAMS, ALL WITH A SINGLE PURPOSE: TO CREATE A UNIQUE, INNOVATIVE, DISRUPTIVE PRODUCT, WITH THERMAL AND ACOUSTIC PROPERTIES WHILE SIMULTANEOUSLY BEAUTIFUL. MORE THAN A PRODUCT, AN EXPERIENCE. **SEE, TOUCH AND FEEL IT.**

GENCORK
CORK LIKE YOU´VE NEVER SEEN IT BEFORE.

GENCORK is a brand that explores the symbiosis between low-tech material and high-tech processes. The 100% natural and sustainable expanded cork agglomerate is transformed through generative design algorithms and advanced digital fabrication processes, expressing a new formal aesthetics. This creative and disruptive system not only optimizes cork's thermal and acoustic properties but also adds artistic value to traditional walls.

BRAND BY SOFALCA | CREATIVE DIRECTION BY DIGITALAB

Green Product Award Winner 2016

GERMAN DESIGN AWARD SPECIAL 2017

SOFALCA . MANUFACTURER

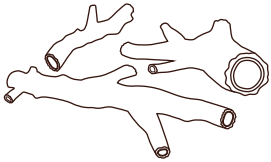
Having established a market presence over years of professional activity, and always using cork as a raw material for creating its products, Sofalca works daily to develop new innovation processes for its business area. When testing our products, there's always one thing that we keep in mind: to provide natural and ecological market solutions. Sofalca's productive process is both sustainable and energetically self-sufficient in 95% of its needs when using its own biomass. Apart from being a business, we define sustainability, we care for the environment and about providing solutions for our clients' lives and those of future generations by marketing a highly sustainable product. Sofalca complies with all the environmental standards and is even a certified business in terms of cork recycling. Sofalca's objective since the beginning of its existence as a productive enterprise has been to expand its business in different areas. We want to be the best and to innovate constantly.
We are ready to accept the challenges set by architects, engineers, designers, builders and business owners.

CORK . 100% NATURAL

It is only used cork of the branches (falca) for the manufacture of cork granules. These are block clusters in an autoclave, a process that's 100% natural, without the use of additives. This technology, developed by Sofalca, consists of injecting water vapor through pellets that will expand and agglomerate with the resin of the cork itself. This "cooking" also gives the resulting cork a dark color, like chocolate. During the production of the steam, biomass is used, which is obtained in milling and cleaning the falca, and that's what makes it a truly ecological production and without waste, with a 95% energy self-sufficiency. This super-material, cork, offers a huge range of advantages, because, in addition to being an excellent thermal and acoustic insulator and as well as antivibration, it's also a CO2 sink, playing a key role in the environment.

GENERATIVE DESIGN . DIGITAL PROCESS

The digital process is one of the most important elements of GENCORK´s DNA. Adopting computational design strategies, the brand explores algorithmic scripts inspired by nature, as well as mathematics, geometry, and biomimetics, through parametric systems. With this process, it's now possible to produce a huge range of different variations of a pattern, adapting it to any size or form.



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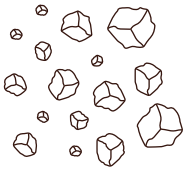
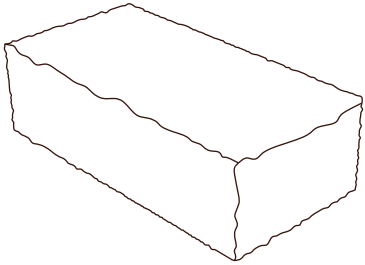
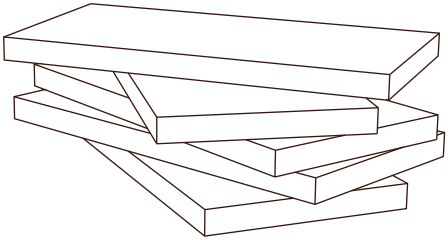


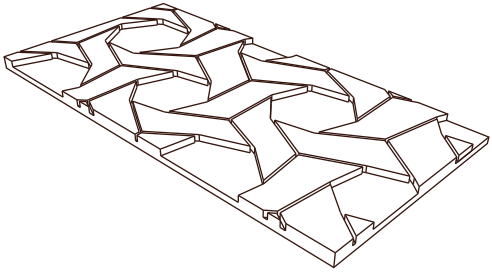
2.CORK GRANULES



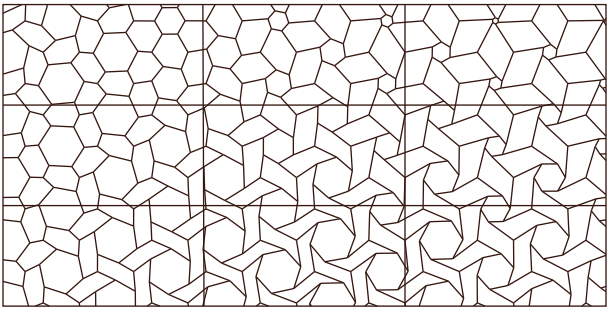
3.CORK BLOCK CLUSTER



4.CORK PANELS



5.GENCORK PANELS (CNC MILLED)



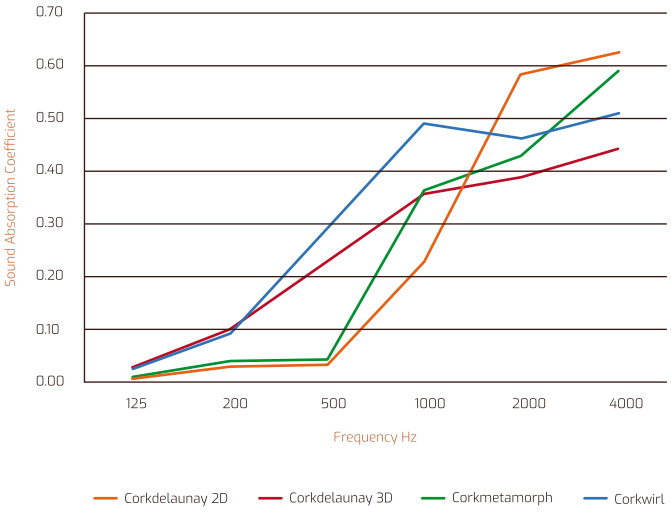
6.GENERATIVE WALLS-DYNAMIC PATTERNS

TECHNICAL DETAIS . PROPERTIES

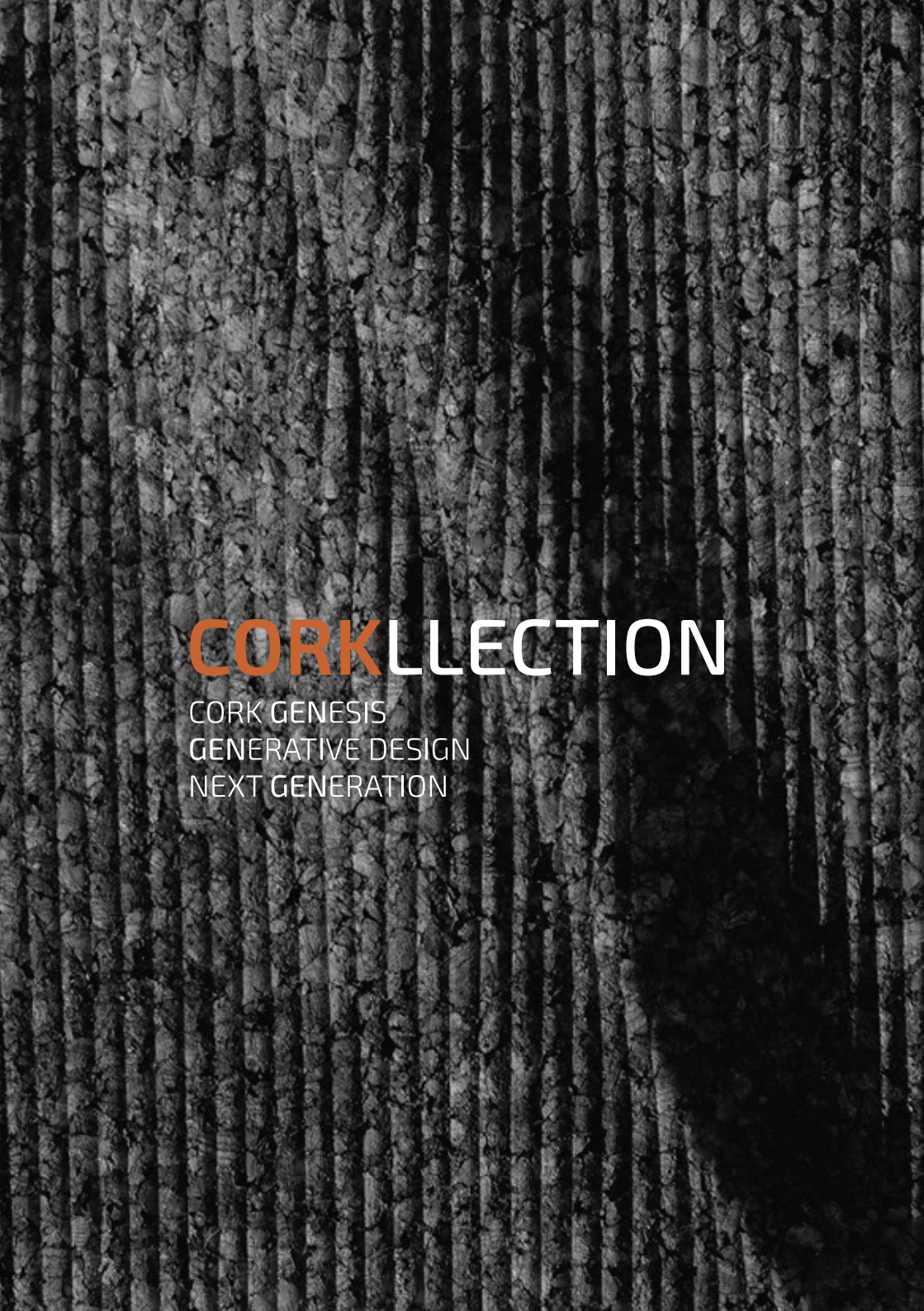
Made in Portugal
100% natural, ecological, 100% recyclable
95% energy self-sufficient production
Hypoallergenic properties
Fire, water, and weather-resistant
Preservation and respect for trees
Misuse can cause product deterioration
Digital fabrication - CNC milling machine
Cork color changes with exposure to sunlight (UV)
Cork's scent is natural and non-toxic, it disappears with time.

ACOUSTIC DETAILS . SOUND

This graph shows the absorption coefficient of our cork panels with different thickness, at any given audio frequency.
Our products reduce sound reflections, making it a great sound absorber. A perfect solution for residential buildings, restaurants, hotels, and offices.



2019


CORKLLECTION
CORK GENESIS
GENERATIVE DESIGN
NEXT GENERATION

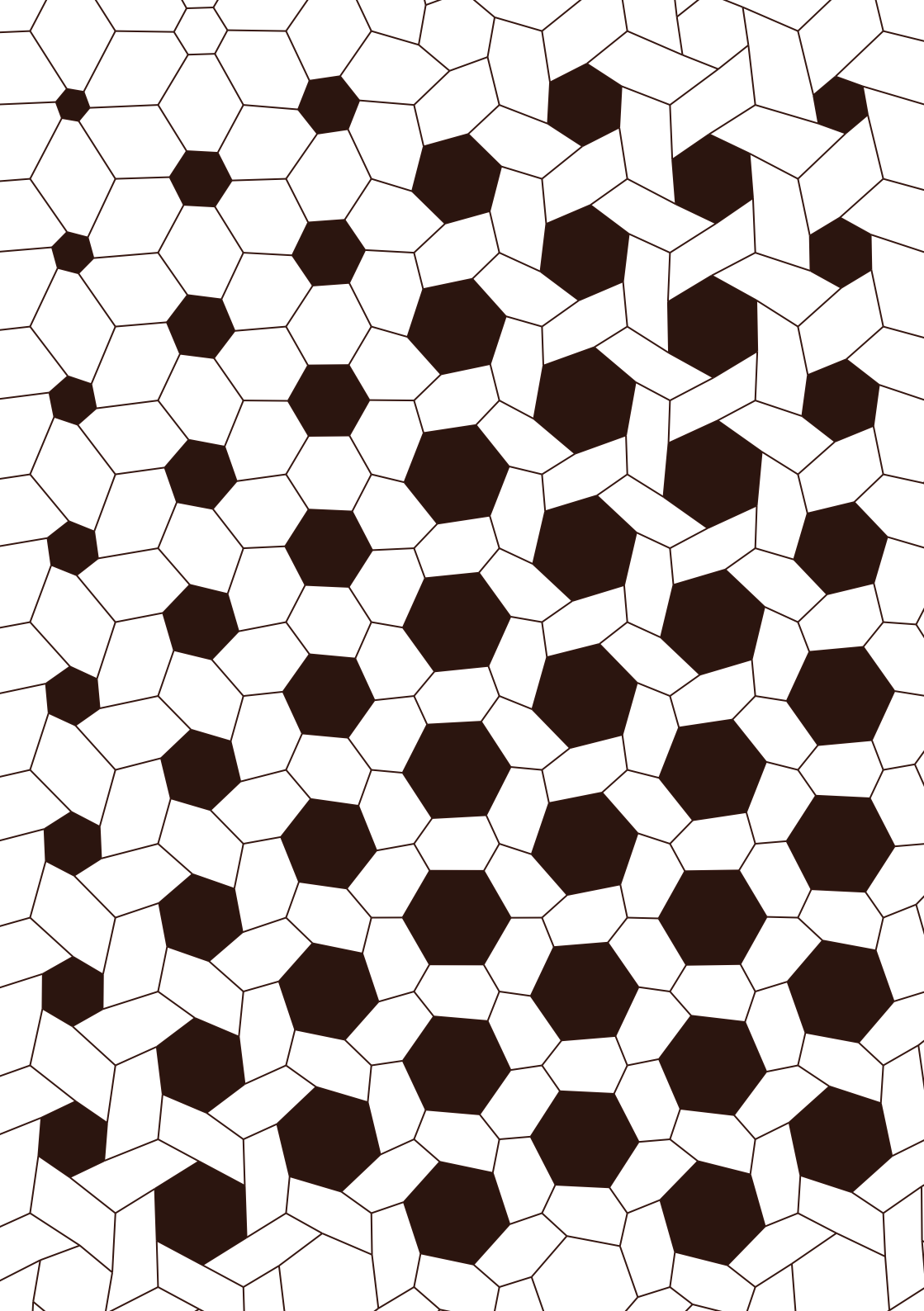
CORKMETAMORPH

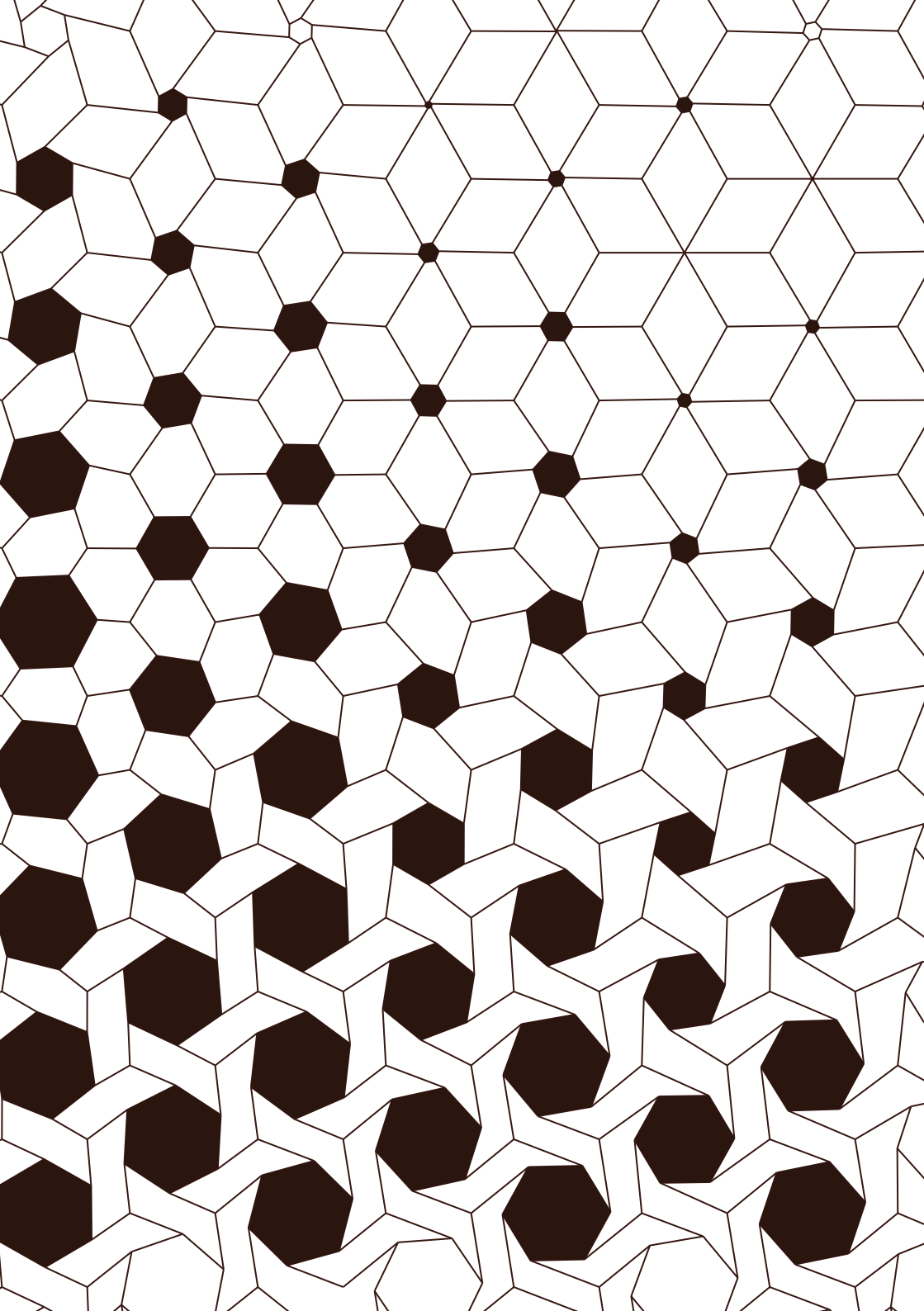
CORKPATTERNS

100 x 100 x 3 cm

Corkmetamorph explores the mathematical and geometric art of M.C. Escher through generative design and parametric systems. It can be characterized as a visual metamorphosis of lines and hexagons of different sizes, that in turn create a dynamic and progressive pattern in the cork texture. From the digital world to a physical environment, this pattern can adapt to any wall. This is an evolutive cork panel, not just with unique aesthetics but also with great acoustic properties.

Design by [DIGITALAB]#form

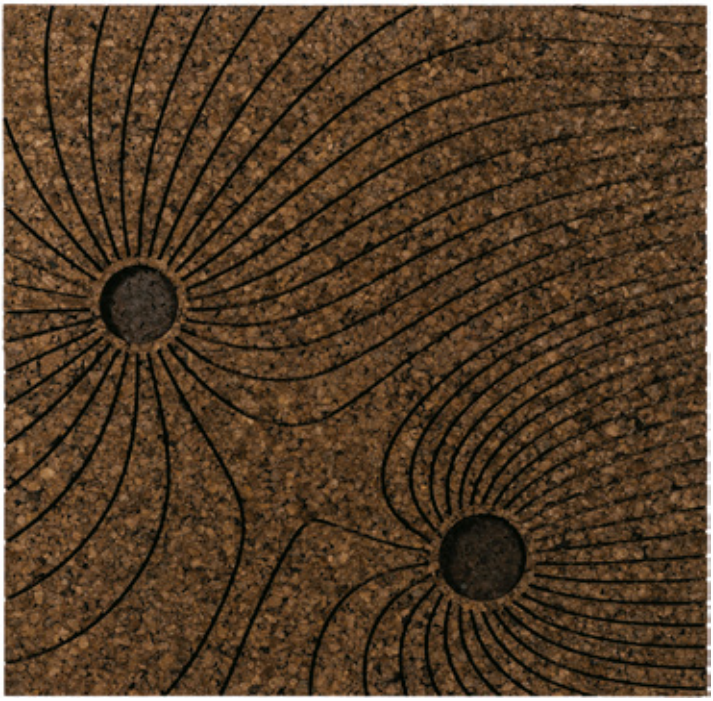




CORKFLOW

CORKPATTERNS

100 x 100 x 3 cm



What would the graphical representation of a magnetic force field or the movement of fluid elements through space be like? Corkflow tries to record those natural phenomena through winding, curved lines articulated with circumferences of different diameters. It's a generative pattern that can be adapted to any surface and size, with various densities and compositions.

Design by [DIGITALAB]#form

CORKHEXGRID

CORKPATTERNS

100 x 100 x 3 cm

Corkhexgrid is a minimal hexagonal pattern that explores simple geometric lines and highlights the cork's texture.

Design by [DIGITALAB]#form

CORKFRACTAL 2D

CORKPATTERNS

100 x 100 x 3 cm

Corkfractal explores cork's molecular structure (a hexagonal grid) as a starting point to bridge the visible and invisible for the benefit of the human eye. Using a recursive subdivision to break the panels down into bigger and smaller areas of density, CorkFractal is composed by a hexagonal grid subdivided infinitely to a scale too tiny to be seen by the naked eye. The result is a group of 2D lines, milled into the cork panel, generating a perception that the panel is composed by an agglomeration of hexagons and triangles, controlled by the recursive algorithm.

Design by SPACEGRAM

CORKDELAUNAY 2D

CORKPATTERNS

100 x 100 x 2 cm

In the universe of Mathematics and Geometry, a Delaunay triangulation is a pattern based on a triangle and constituted by a group of points. The Corkdelaunay2D recreates a topographical analysis of a Delaunay 3D surface, which generates an abstract and labyrinthine aesthetic.

Design by [DIGITALAB]#form

CORKCUBE

CORKPATTERNS

100 x 86 x 3 cm

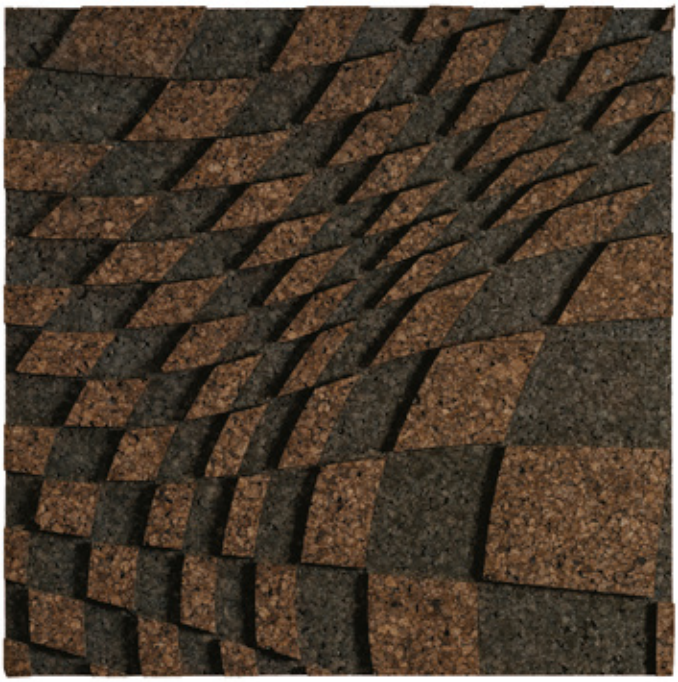
The Corkube panel represents a different approach to traditional hexagonal grids. Playing with shadows and embossing strategies, this pattern creates an irregular geometric tessellation with several configurations: horizontal, vertical or diagonal.

Design by [DIGITALAB]#form

CORKOPTICAL

CORKPATTERNS

100 x 100 x 3 cm



The Corkoptical panel plays with visual illusion and form perception. Inspired by the optical art of Victor Vasarely and Bridget Riley, this magic pattern foments visual play between 2D and 3D worlds. It's a complex geometric grid deformation that creates a set of new spatial perspectives.

Design by [DIGITALAB]#form

CORKTRIFIELD

CORKTILES

U. 54,5 X 48 X 3 cm

Corktrifield is a panel inspired by organic and mathematical vectors. This triangular pattern can be assembled in a regular or irregular way. The match can be concentric or non-concentric. With a striking visual effect, it's a perfect solution for shops and restaurants.

Design by [DIGITALAB]#form

CORKHEXRAN

CORKTILES

U. 45 X 52 X 3 cm

Corkhexran is a hexagonal cork module based on a co-creation strategy (DIT - do it together). It is multivisual, in that it is possible to rotate several times and the match will be always perfect. A unique example of a random creative process. Give it a try!

Design by [DIGITALAB]#form

CORKUNIT

CORKTILES

U. 49 x 28 x 3|6|9 cm

A Corkunit panel is an example of a geometric and abstract topographical surface formed by a single cork module with different thicknesses. The input is a hexagonal grid, the output is a game of multiple levels. It is easy to assemble and is great acoustic insulation.

Design by [DIGITALAB]#form

CORKARC

CORKTILES

U. 22 x 10 x1 |2|3 cm

From a triangular grid to an organic panel. The same element with different thicknesses generates an irregular topography. A great example of simplexity: simple forms that generate complex structures. Easily assembled and with strong aesthetics, it is also a good solution for acoustic insulation.

Design by [DIGITALAB]#form

CORKBLACK ON WHITE

CORKTILES

U. 50 x 50 x 2 cm

The CorkBlack on White panel is about contrast and revelation. This is a double skin of black and white cork: carving graphic lines on the first layer, it appears the lighter color playing with shadows. Just two tiles offer the infinite possibilities of designs for the wall.

Design by Toni Grilo

CORKBOARD

CORKTILES

U. 50 x 50 x 2|24 cm

The Board wall is at the border between space and object. First, it is a flat acoustic panel based on a diamond pattern. Some of the modules can be changed in order to become a board, from 2D to 3D, just a smooth volume in the same black cork material. A delicate place to exhibit objects.

Design by Toni Grilo

CORKLEE

CORKBRICKS

U. 15 x 20 x 8 | 10 x 20 x 8 cm

Corklee, a generative 2D and 3D system with a zero-waste strategy. Two different modules are the input to generate the whole panel. It's the exploration of the geometric world of Paul Klee through digital processes. Simple forms that generate complex patterns. With easy and random assembly, it also has valuable acoustic properties.

Design by [DIGITALAB]#form

CORKFRACTAL 3D

CORKMORPHS

100 x 100 x 7 cm

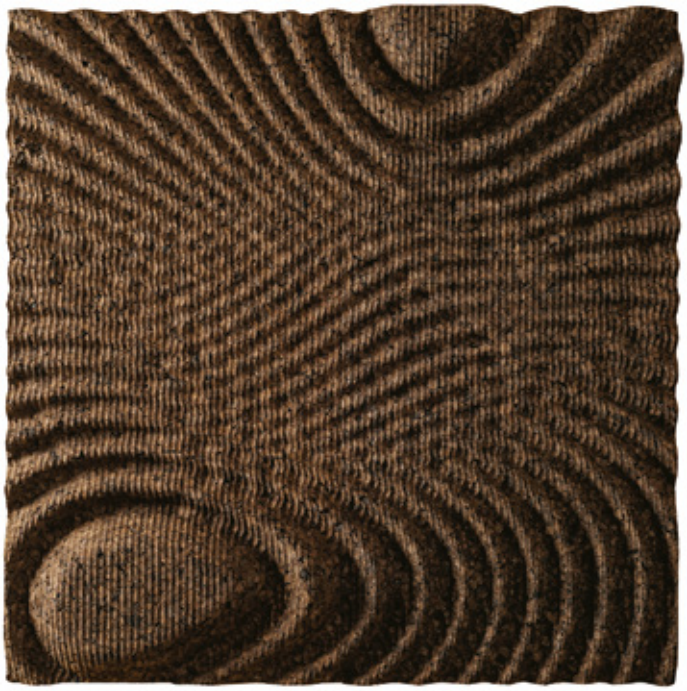
CorkFractal explores cork molecular structure (hexagonal grid) as a starting point to bridge the visible to invisible to the human eye. Using a recursive subdivision to divide the panels into bigger and smaller density areas, CorkFractal is composed by a hexagonal grid subdivided infinitely to a scale not visible to the human eye. The result is a conglomerate of hexagonal and triangular pyramids, which vary base and height accordingly to the subdivision generated by the recursive algorithm.

Design by SPACEGRAM

CORKBIOMORPH

CORKMORPHS

100 x 100 x 10 cm



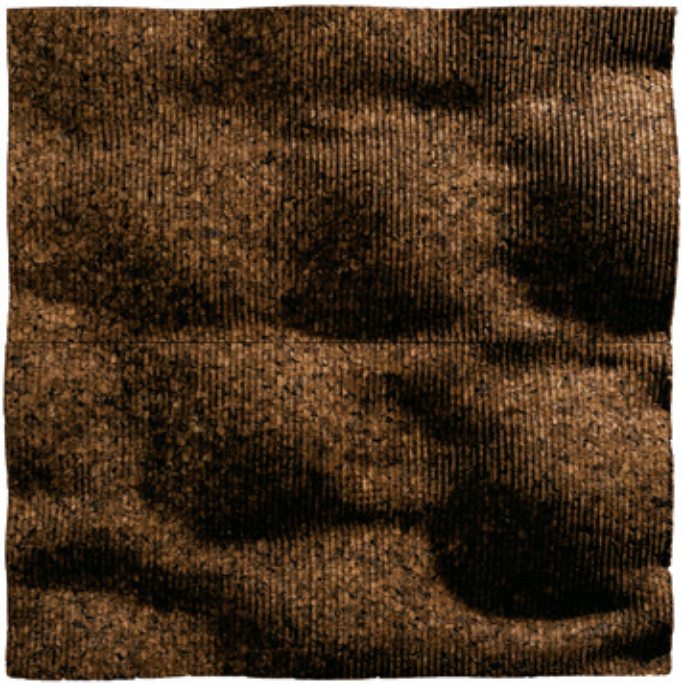
Corkbiomorph is a perfect example of Gencork's panel solutions. Inspired by nature and biomimetic structures, this product can be either modular or custom-made fit a specific wall, exploiting parametric systems. It is also valuable for its acoustic insulation.

Design by [DIGITALAB]#form

CORKBIO

CORKMORPHS

100 x 100 x 10 cm



Inspired in the organic, evolving of nature, the corkbio pattern is a geometric metaphor of biomimetic organisms. It's a three-dimensional representation of a mathematical base that reproduces the phenomena connected to surface erosion caused by elements of nature, such as water and wind. The pattern can be adapted to any surface, and can acquire multiple expressions and formal variations.

Design by [DIGITALAB]#form

CORKAHEDRON LIGHT

CORKITECHS

50 x 50 x 47 cm

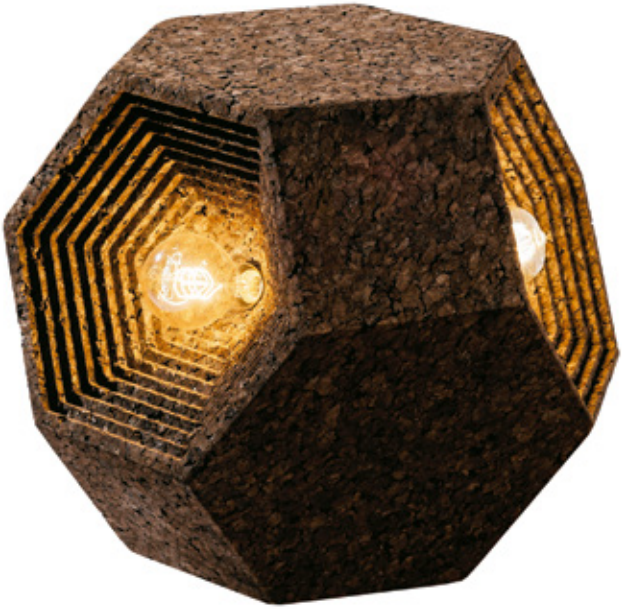
Experience high-quality white and colored light that offers you endless possibilities. Create your own ambiance! Control your lights from your smartphone or tablet using bluetooth.

Design by [DIGITALAB]#form

CORKAHEDRON TRILIGHT

CORKITECHS

50 x 50 x 47 cm



Experience high-quality white and coloured light that offers you endless possibilities. Create your own ambience! Control your lights from your smartphone or tablet using bluetooth.

Design by [DIGITALAB]#form + SOFALCA

DIGITALAB . CREATIVE DIRECTION

DIGITALAB is a design studio and creative lab, focused on both generative design and digital fabrication. It is a young, multidisciplinary practice led by Ana Fonseca and Brimet Silva, that develops projects in several fields : product design, art installation, interior design, architecture and digital research. Digitalab are committed to employing new technologies in the production of forms and spaces, exploring strategic combinations between generative processes (Computational design) and digital fabrication technologies (3D printing, CNC, laser-cutting and robotics). Their goal is to explore the potential of digital tools as creative weapons to transform pixels into atoms, and digital processes into physical objects and environments.

WWW.DIGITALAB.PT

SPACEGRAM . DESIGNERS

Motivated by experimentation and innovation in the development of leading edge ideas, a collective of three young creatives was brought to life with the purpose of design beauty. With a multiplicity of international experiences, this collective drifts across a range of design disciplines employing a common set of skills and values while exploring new techniques and technologies in the quest of unique design solutions. Working close since 2015, the collective is composed by Ana Raquel, Bruno Martins Pereira and Gil Pedrosa.

WWW.SPACEGRAM.COM

TONI GRILO . DESIGNER

Designer and Art Director, Toni Grilo was born in France in 1979. Graduate by the École Boulle in Paris in 2001, he immediately goes to Lisbon, continuing to develop projects in France. At the end of Europe, finding its roots, he discovers a rich industrial and craft country, and is obsessed by the beauty of technical processes and materials. After various collaborations, he decides to stay permanently in Portugal: he founds in 2005 a first agency, Objection with the designer Elder Monteiro, but in 2008 he opens his own studio, creating products, furniture and scenography.

WWW.TONIGRILO.COM

DRAWINGS, THOUGHTS AND NOTES

by

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