



### BIGGER and GREENER







# "IN NATURE NOTHING IS LOST, NOTHING IS CREATED, EVERYTHING IS TRANSFORMED".

GENCORK IS GROWING FAST, AFTER FOUR YEARS SINCE THE INTERNATIONAL LAUNCH IN PARIS, THE BRAND REVEALS A STRONG MATURITY AND A SPECIAL COMMITMENT NOT ONLY WITH SUSTAINABILITY BUT ALSO WITH INNOVATION, PROUDLY MADE IN PORTUGAL. YOU CAN FIND OUR GENERATIVE CORK PANELS ACROSS THE WORLD, IN HOTELS, RESTAURANTS. OFFICES, PUBLIC SPACES. ETC OUR CREATIVITY IS ENDLESS. OUR PASSION REMARKABLE, OUR AIM IS PRETTY CLEAR: CREATE OUTSTANDING ACOUSTIC PANELS, USING CORK LIKE YOU'VE NEVER SEEN IT BEFORE. AN EXPLORATORY APPROACH THAT MERGES THE FORMAL VARIATIONS AND AESTHETICS OF GENERATIVE DESIGN WITH CORK, TAKING ADVANTAGE OF THE AMAZING PROPERTIES OF THIS UNIQUE MATERIAL. FOR 2020 OUR GOAL, IN COLLABORATION WITH GREEENAREA - A COMPANY SPECIALIZED IN INNOVATIVE, CREATIVE AND VERSATILE PLANT DECORATION, IS TO COMBINE CORK WITH PLANTS, RECREATING AN ORGANIC BIOMIMETIC SYMBIOSIS. INSPIRED BY NATURE.

GENCORK BECOMES BIGGER AND GREENER.



# 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







#### 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.



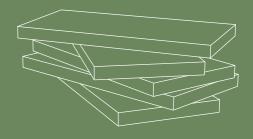
1. BRANCHES (FALCA



CORK GRANULES



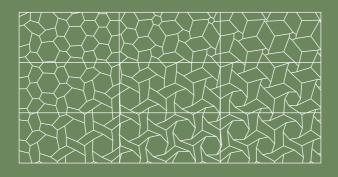
3 CORK BLOCK CLUSTER



I CUDK DVVIEI C



5.GENCORK PANELS (CNC MILLED)



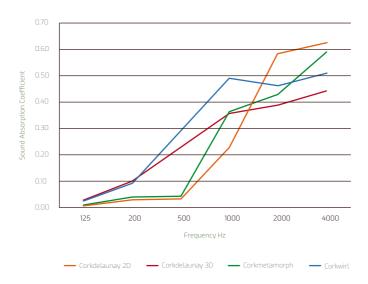
6.GENERATIVE WALLS-DYNAMIC PATTERNS

#### TECHNICAL DETAILS. PROPERTIES

Made in Portugal
100% natural, ecological, 100% recyclable
95% energy self-sufficient production
Hypoallergenic properties
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.







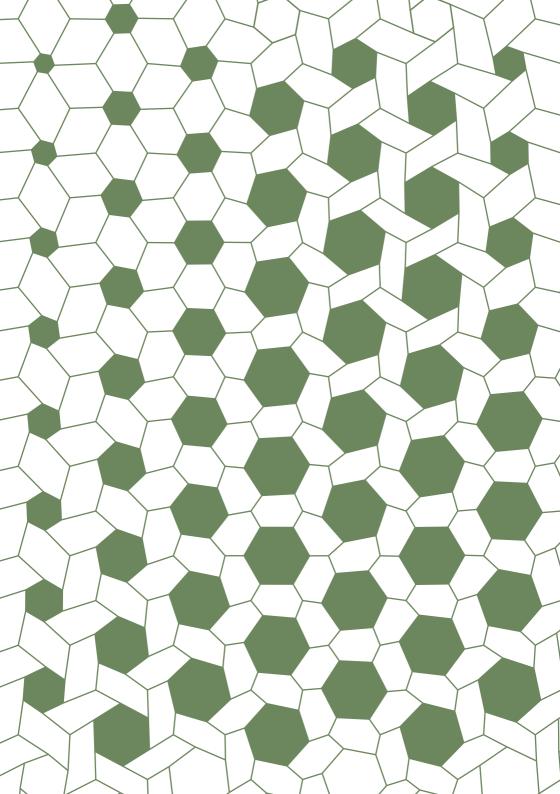
#### CORKMETAMORPH

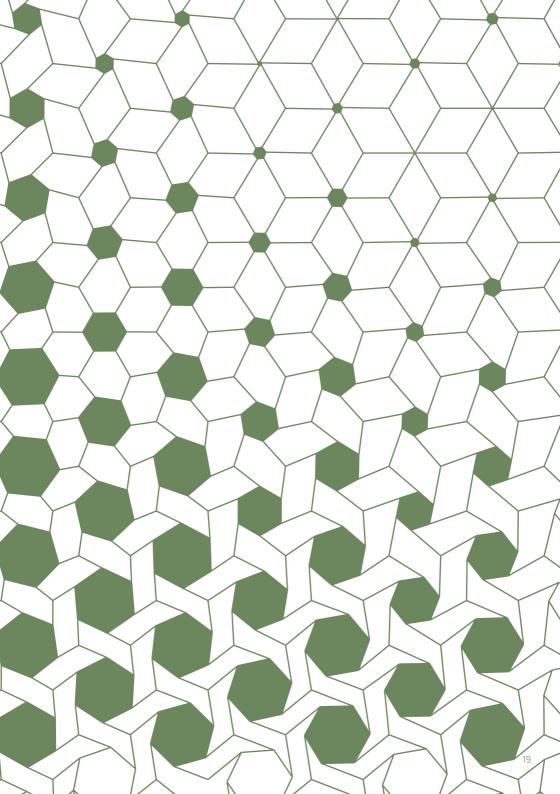
CORKPATTERNS



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 and dynamic cork panel, not just with unique aesthetics but also with great acoustic properties.









#### CORKFLOW CORKPATTERNS 100x100x3 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.





#### **CORKDELAUNAY 2D**

#### CORKPATTERNS 100x100x2 cm



In the universe of Mathematics and Geometry, a Delaunay triangulation is a pattern based on different triangles 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.





#### CORWIRL 2D CORKPATTERNS 100x100x3 cm



Corkwir is a generative pattern inspired by nature and biomimetic systems. The twirl movement generates organic and fluid shapes. A perfect symbiosis among movement, form, and texture. In this bidimensional version, we create organic curves that promote optical illusions.





#### CORKOPTICAL CORKPATTERNS 100x100x3 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.





#### CORKTRIFIELD CORKTILES U. 50X44X3 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.

#### CORKHEXRAN CORKTILES U. 45X52X3 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!

#### 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.

#### CORKARC CORKTILES U. 22X10X1 |2|3 cm



From a triangular grid to an organic panel. The same element with different thicknesses generates an irregular topography. Corkarc is 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.

#### CORKCUBE CORKTILES 100×100×3 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.

#### CORKBOARD CORKTILES U. 50x50x2|26 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.



## **CORKBLACK AND WHITE**

CORKTILES U. 50x50x2 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 lightness color playing with shadows. Just two tiles offer the infinite possibilities of designs for the wall.



#### CORKLEE CORKBRICKS U. 15X20X8 | 10X20X8 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.







#### CORKTRIANGLE CORKBRICKS U. 30X13X6 cm



Corktriangle panel is a topographic 3D pattern made with triangular cork modules. It's possible to achieve multiple regular and irregular configurations. Made with a zero-waste strategy in mind, it is very simple to put together, it is also a perfect solution for acoustic insulation.

# GREEN

#### CORKMETABALL CORKGREENS 100x100x3 cm



Metaballs are, in computer graphics, organic-looking n-dimensional objects. For this pattern, we adopt its topologic curves to generate planar terrains exploring the different curves densities. The green lichens cover the empty spaces between the dynamic lines creating an organic and natural atmosphere.







#### CORKNATURE CORKGREENS 100 x 100 x 10 cm



Corknature is a disruptive pattern that combines cork and plants naturally preserved, with strong flexibility, plasticity and natural vigor without any maintenance. To create the cork structure we adopted a generative system which converts procedural images (bitmaps) into tridimensional surfaces. The green plants are included on the cork in an evolutive way inspired by digital principles of attraction/dispersion. A perfect example of a biomimetic and biologic approach.







## CORKOREEN U-45x45x3 cm



Corkvor is a generative pattern based on Voronoi diagram, partitioning of a plane into regions based on the distance to points in a specific subset of the plane. This principle creates a set of topologic voids, a perfect hub for green lichens. The hexagonal shape allows combine each module in different ways, getting different variations and aesthetics.



#### CORKWIRL CORKMORPHS 100X100X10 cm



Corkwirl, a generative pattern inspired by nature and biomimetic systems. The twirl movement generates organic and fluid shapes. A perfect symbiosis among movement, form and texture.







#### 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 variations.



#### CORKTESS CORKMORPHS 100×100×10 cm



Corktess explores the algorithmic creation of complex geometries on planar surfaces. This cork panel was inspired by origami paper structures, that create different topologies with dynamic movements and minimal aesthetic.







### **CORKDELAUNAY 3D**

CORKMORPHS U-50 x 50 x 10 cm



The Corkdelaunay 3D pattern is a three-dimensional version of a delaunay 2D script. Flat lines give way to an irregular topographical surface made up of triangles of different sizes. It's a vibrant model that explores the many aesthetic particularities of digital fabrication. The bold design allows for multiple configurations and a great versatility, generating a play between light and shadow.



#### CORKBIOMORPH CORKMORPHS 100X100X10 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.







## CORKAHEDRON CORKWALLS U. 50 x 50 x 47 cm



Corkahedron is a modular and multifunctional product inspired by geometric polyhedrons that generate different combinations and spaces. This is pure creativity taking shape without screws or glue. It's easy to create stools, coffee tables, and freestanding walls. A perfect solution for restaurants, office spaces, hotels, and schools.

## CORKAHEDRON TRILIGHT CORKITECHS 50 x 50 x 47 cm



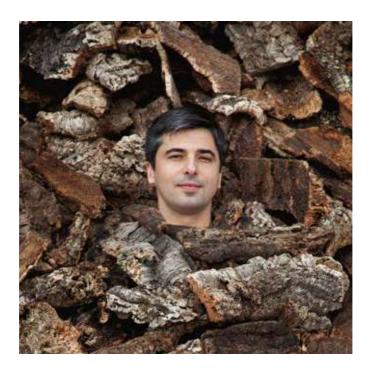
Experience high-quality white and coloured light that offers you endless possibilities. Create your own ambience! Control your lights from your smartphone or tablet using bluetooth.

## 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.

## 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.TONIGRII.O.COM







Estrada Nacional n.º 2, Km 413.2, Bemposta - 2205-213 Abrantes - Portugal +351 241 732 165 | +351 910 335 586

info@gencork.com info@sofalca.pt www.sofalca.pt







GENCORK.COM

 $f \mathcal{P} \odot \mathcal{V} in$ 

