



**GENC DAK**  
THE NEXT GENERATION

INSTALLATION MANUAL



CORK

MEETS

GENERATIVE

DESIGN

**GENCORK** is a brand of cork covering solutions that explores the symbiosis between a 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.

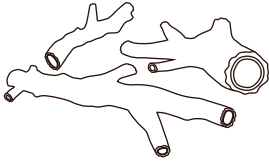
## **CORK** . 100% NATURAL

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 is 100% natural, without the use of additives. This technology, developed by Sofalca, consists of injecting water vapour 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 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.

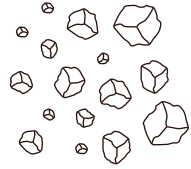
## **GENERATIVE DESIGN** . DIGITAL PROCESS

The digital process is one of 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.

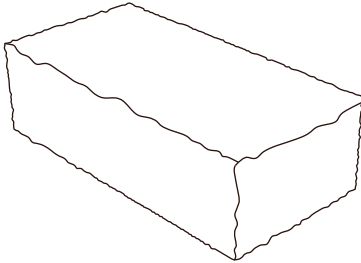
# THE PRODUCTION PROCESS



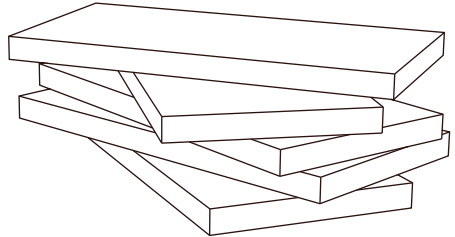
1. BRANCHES ( FALCA )



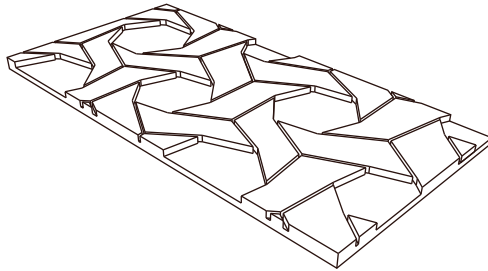
2. CORK GRANULES



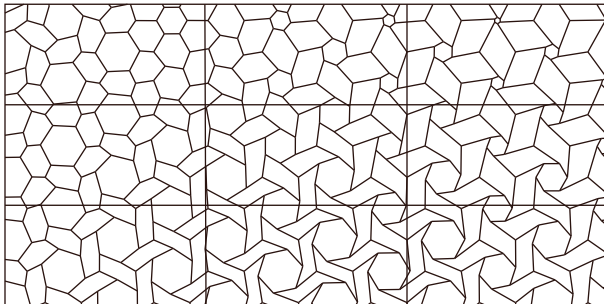
3. BLOCK CLUSTER



4. CORK PANELS



5. GENCORK PANELS (CNC MILLING )



6. GENERATIVE WALLS | DYNAMIC PATTERNS

## THERMAL INSULATION DETAILS

Thermal conductivity coefficient\_0,40 W/mK

Values of Thermal Insulation (R e m<sup>2</sup> k/W and K in W/m<sup>2</sup>k) 50mm

R = 1.250 ; W = 0.800

Density\_140 Kgs / m<sup>3</sup>

Fire Class\_E

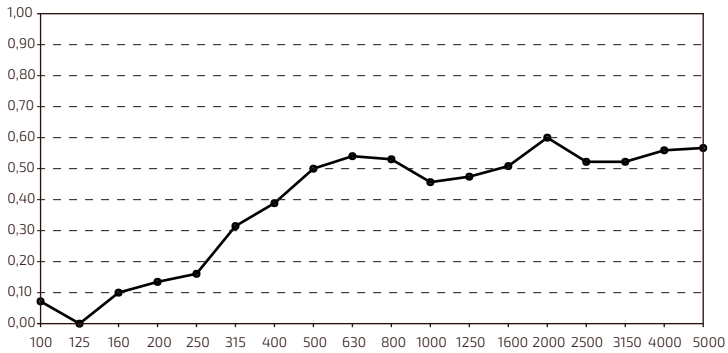
## SOUND ABSORPTION DETAILS

Sound absorption coefficient curve

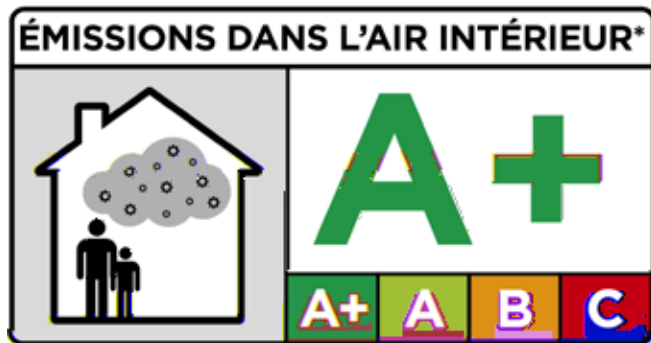
Results in accordance with ISO 11654:1997

$\alpha_w = 0.45$

Class : D



## INDOOR AIR EMISSIONS



## CONGRATULATIONS!!

You just got a GENCORK Wall. Now it's time to assemble it. We will help.

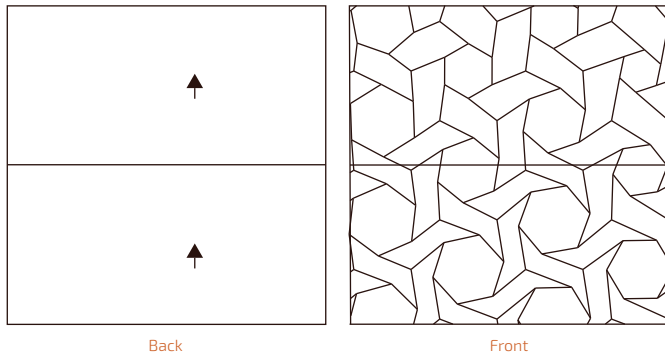
Before you start assembling your wall, you need to know that GENCORK boards are 100% natural, where the cork glues every grain together naturally. Be careful when assembling because GENCORK boards are fragile, especially around the edges and where the board has less thickness.



## ASSEMBLY | STEP 01

1. Start by getting your GENCORK wall out of the boxes, taking care when doing so;\*
2. Every GENCORK board is marked on the back. Follow the chess board pattern scheme to assemble your wall. You will find it's really easy;
3. The supporting wall must be well cleaned and free of any residues that may keep the glue from adhering properly. Make sure the supporting wall is square and free of any imperfections, so that it does not affect the pattern;

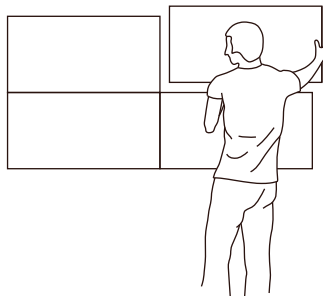
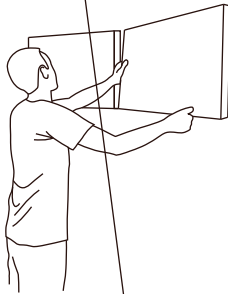
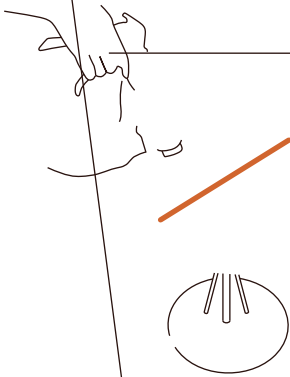
\*If you have the time and the space, start by carefully assembling your GENCORK wall on the floor as a trial.

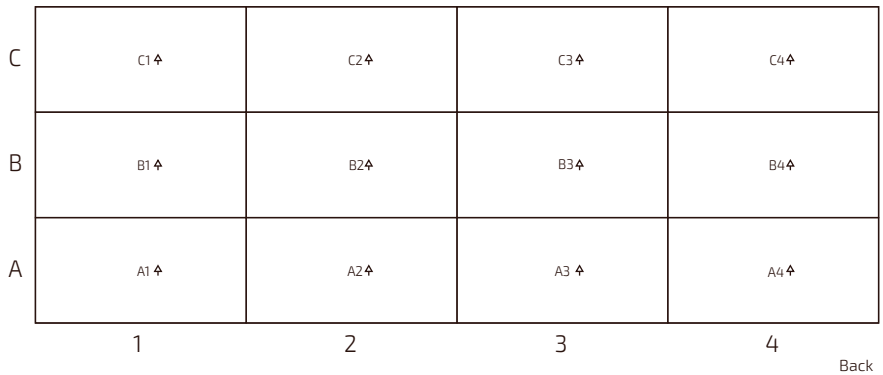
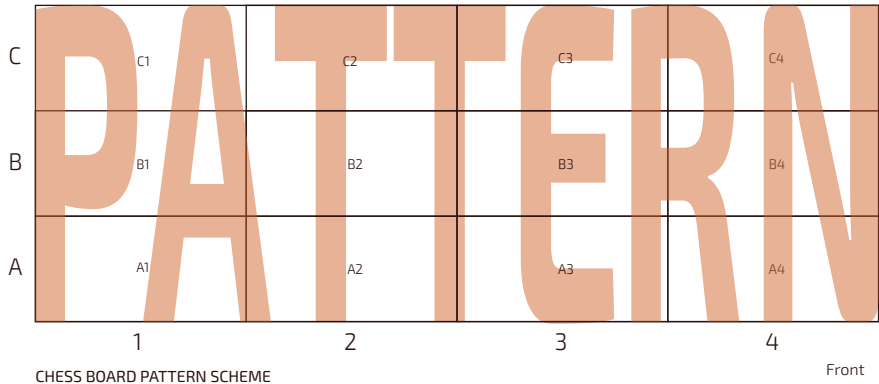
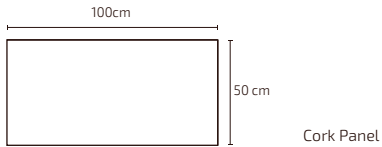


Arrow indicates top of the GENCORK board

## ASSEMBLY | STEP 02

4. Use any universal construction adhesive on the back of the board as shown, and apply it directly onto the wall;
5. If the supporting wall is made of wood or drywall, you can fasten the GENCORK boards to it using screws;
6. To trim a GENCORK board, use a X-Acto knife, or even basic woodworking tools (Ex: band saw/jigsaw);
7. To get invisible seams, apply a dab of wood glue on the edges, and press them together when applying to the supporting wall. Repeat this step until your GENCORK wall is complete!





## MAINTENANCE

Gencork walls are very low maintenance. Use a feather duster from time to time to keep it clean. Avoid impacts with the wall. If a cork grain gets loose, use wood glue to put it back in place

## TECHNICAL DETAILS

### Made in Portugal

100% natural, ecological, 100% recyclable

95% energy self-sufficient production

Hypoallergenic properties

Water and weather-resistant

Perservation 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

Cork grains are not edible

[WWW.GENCORK.COM](http://WWW.GENCORK.COM)

by



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