

AUSLAY  
INDUSTRIES PTY LTD®

eCORK  
Acoustics Australia

Reinventing sustainable green and  
acoustic insulations. The world's only true  
environmentally friendly acoustic solution.

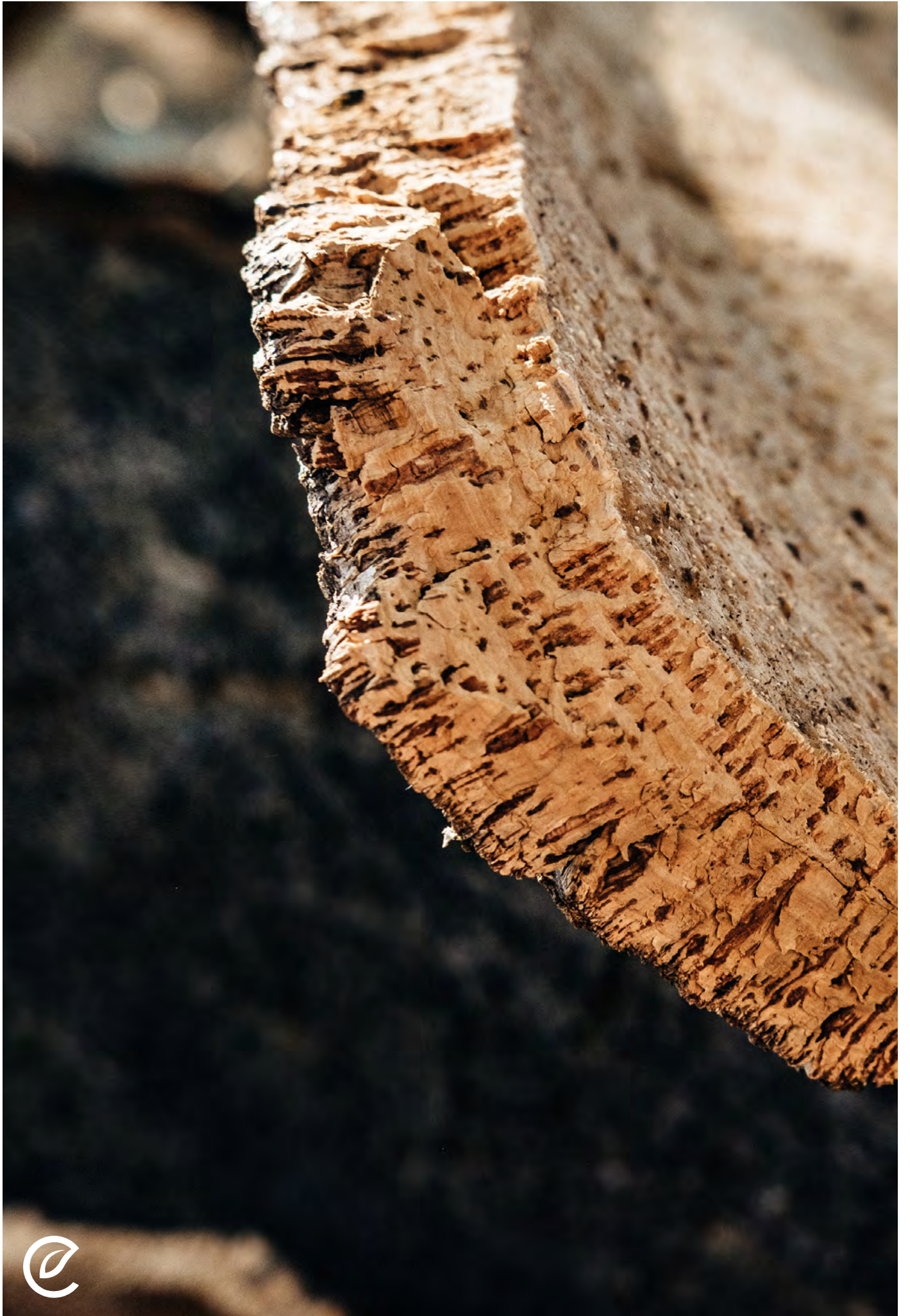


AcoustiCORK  
AUSTRALIA

COMPLETE







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# CORK

## AN EXCEPTIONAL RAW MATERIAL

Cork is commonly described as being the bark of the cork oak (*Quercus Suber L.*), which means that it is 100% natural plant tissue that covers its trunk and branches.

It consists of a honeycomb-like structure of microscopic cells filled with an air-like gas and coated mainly with suberin and lignin. One cubic centimetre of cork contains about 40 million cells.

Cork is also known as the “nature’s foam” due to its alveolar structure. It has a closed cell structure making it lightweight, airtight and watertight, resistant to acids, fuels and oils, and impervious to rotting.

It is sustainably harvested by specialised professionals without damaging the trunk, meaning that the tree itself lives to grow another bark layer that, in time, will be harvested once again. Over the course of its lifetime, which on average lasts 200 years, it may be stripped around 17 times meaning that cork is not only a natural material, but also a renewable and recyclable one.



Excellent Acoustic Insulation



Excellent Thermal Insulation



Good resilience, excellent compressibility and recovery



Extremely light and buoyant



100% natural, reusable and recyclable





# CORK

## THE MOST VERSATILE NATURAL PRODUCT

At ecoCORK Acoustics Australia, we reinvent the world every day: we reuse and re-purpose natural and recyclable materials.

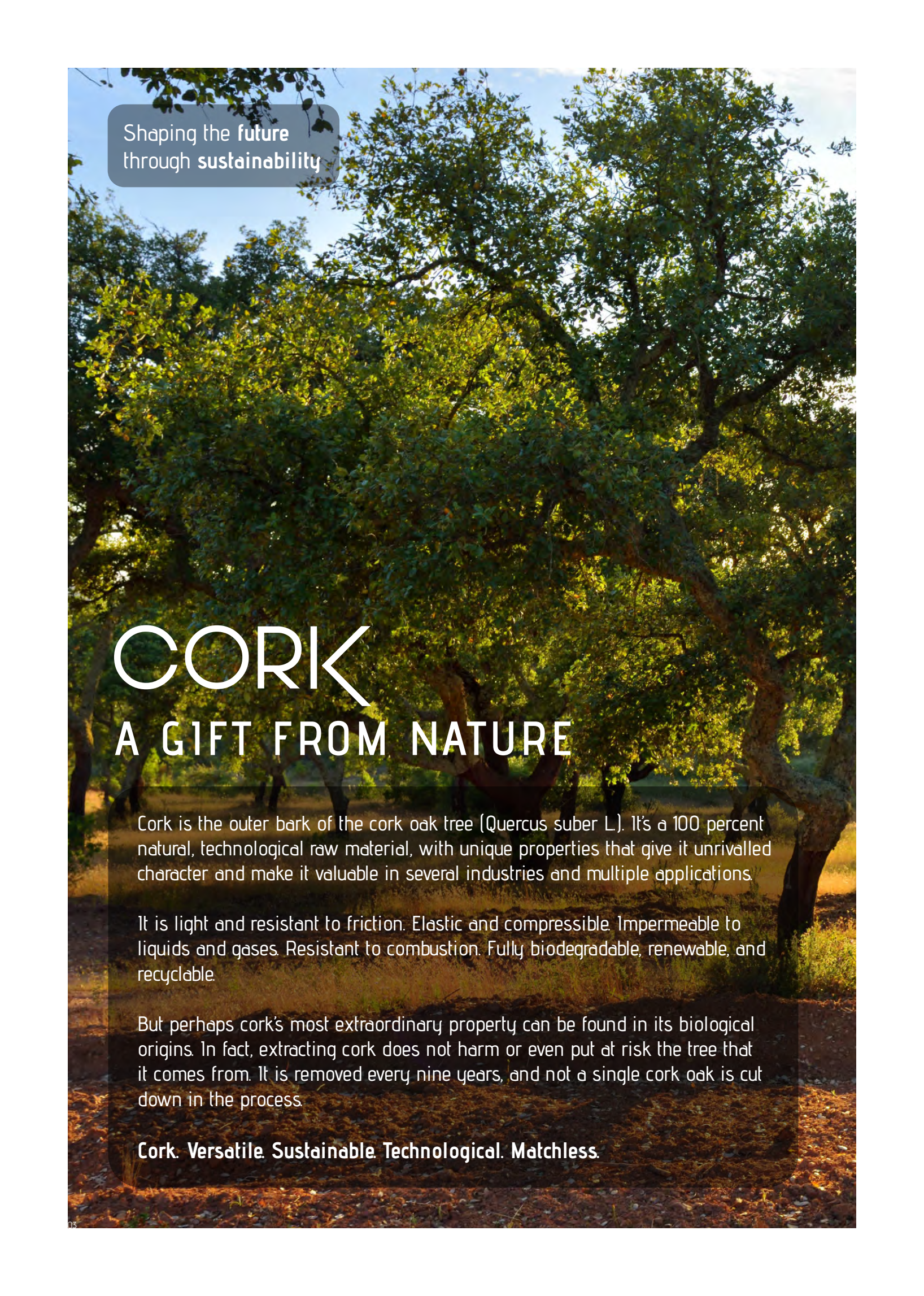
Cork is the main raw material for the development of a portfolio of high-performance materials for multiple industries such as aerospace, panels and composites, automotive, seals and gaskets, the power industry, construction, sports surfaces, flooring, consumer goods, furnishing, and footwear.

We value cork, a 100 percent natural, sustainable, and highly technological material, shaping it to meet the most demanding requirements. Cork also provides many other unrivalled benefits over all other standard acoustic options.

**ecoCORK combines the incredible attributes of cork to provide the world's only true environmentally friendly acoustic solution.**







Shaping the **future**  
through **sustainability**

# CORK

## A GIFT FROM NATURE

Cork is the outer bark of the cork oak tree (*Quercus suber* L.). It's a 100 percent natural, technological raw material, with unique properties that give it unrivalled character and make it valuable in several industries and multiple applications.

It is light and resistant to friction. Elastic and compressible. Impermeable to liquids and gases. Resistant to combustion. Fully biodegradable, renewable, and recyclable.

But perhaps cork's most extraordinary property can be found in its biological origins. In fact, extracting cork does not harm or even put at risk the tree that it comes from. It is removed every nine years, and not a single cork oak is cut down in the process.

**Cork. Versatile. Sustainable. Technological. Matchless.**



The stripping of the cork is  
essential for the life of the tree.

**25 YEARS**

The average time before  
the cork oak is harvested  
for the first time

**9 YEARS**

The period of time  
between each cork oak  
harvesting

**200 YEARS**

The average life expectancy  
of a cork oak



# THE CORK OAK

## AN EXTRAORDINARY TREE

The 'Montado' (cork oak forest) is the basis of a biodiversity-generating ecosystem where the roots of the future are planted.

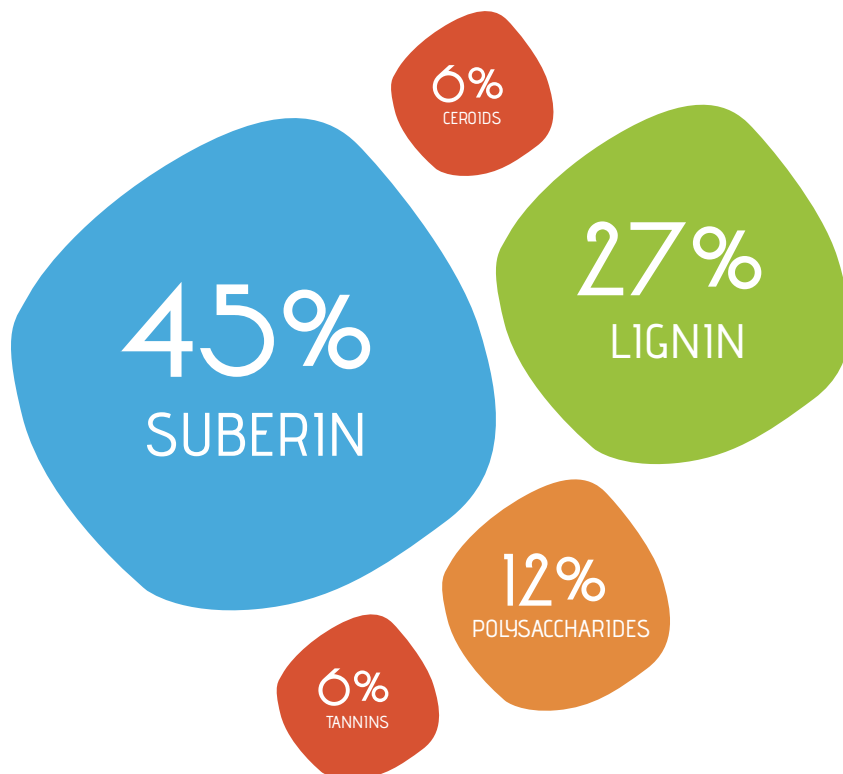
The cork oak tree prevents soil degradation, produces clean air, and stores carbon dioxide, a major cause of climate change.



Cork consists of a hive-like structure of microscopic cells filled with a gas similar to air and mostly coated with suberin and lignin. In its chemical composition, other compounds can also be identified, such as polysaccharides, ceroids, and tannins.

The high percentage of gas of each cell is responsible for cork's extraordinary lightness. The association of these cells, as if they were a kind of small aggregate cushions, is responsible for their compressibility and elasticity.

In a single cubic centimetre of cork, there are about 40 million cells.







**1** PREVENTS SOIL  
DEGRADATION

**2** IMPROVES SOIL PRODUCTIVITY

**3** REGULATES THE HYDROLOGICAL  
CYCLE

**4**  
FIGHTS  
DESERTIFICATION

**6** FIGHTS  
CLIMATE  
CHANGE

**5** ABSORBS  
AND STORES  
CARBON  
DIOXIDE OVER  
VERY LONG  
PERIODS OF  
TIME

**7** GENERATES HIGH LEVELS OF BIODIVERSITY



# OTHER FEATURES



## IMPERMIABILITY TO LIQUIDS AND GASES

Thanks to suberin and ceroids in the cell's walls, cork is impermeable to liquids and gases. Its resistance to humidity allows it to age without deteriorating.



## ELASTICITY & COMPRESSIBILITY

Cork is the only solid that, when compressed on one side, does not increase in volume on the other. Cork's elastic memory allows it to adapt to temperature and pressure changes.



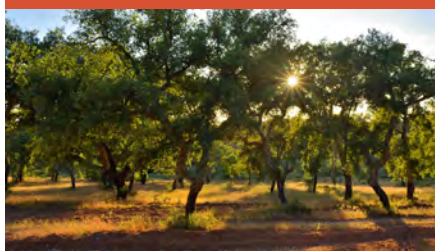
## HYPOALLERGENIC

Because cork does not absorb dust, it helps protect against allergies.



## RESISTANCE TO FRICTION

Cork is extremely resistant to abrasion and is highly resistant to friction.



## RESISTANCE TO FIRE & HIGH TEMPERATURES

Cork is a natural fire retardant: it does not flame or release toxic gases during combustion.



# OTHER FEATURES



EASY INSTALLATION



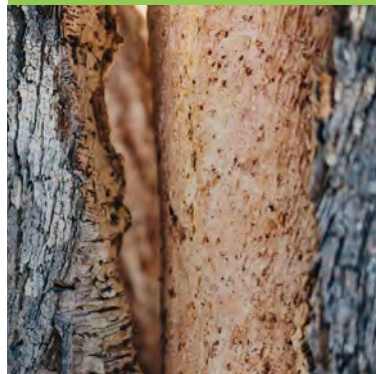
GREAT FEELING  
UNDERFOOT



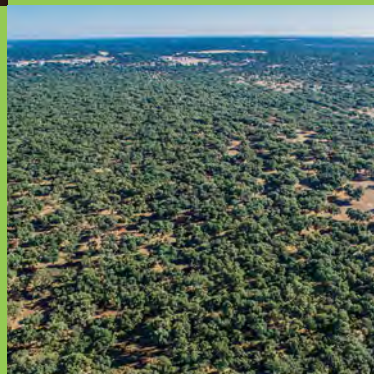
NON TOXIC



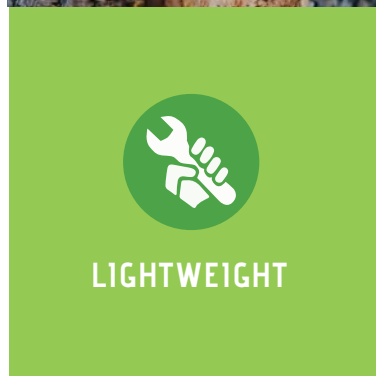
AVAILABLE IN  
DIFFERENT  
THICKNESSES



COMPATIBLE  
WITH ALMOST  
ALL ADHESIVES



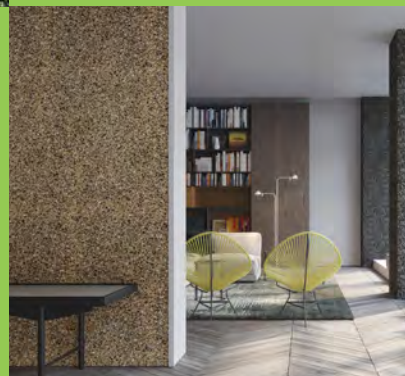
FOR USE  
UNDER ALL  
FLOOR TYPES



LIGHTWEIGHT



5 STAR RATING  
(AAC)



STRESS CRACK  
PROTECTION



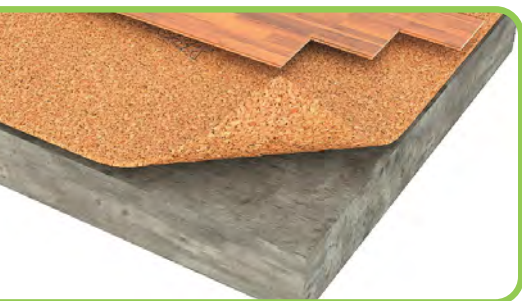
THERMAL  
INSULATION



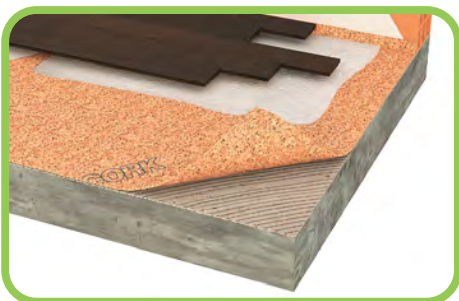


UNDERLAY

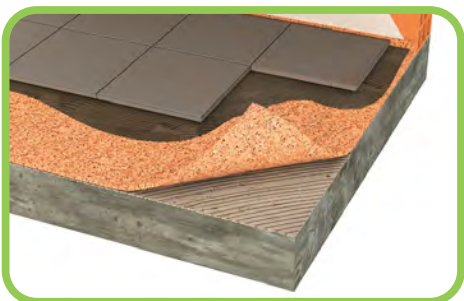
ECOCORK HAS SOLUTIONS FOR DIFFERENT TYPES OF FINAL FLOORING



**TIMBER/VINYL**  
Glue down or floated



**LAMINATE**  
Floated



**TILES**  
Flexible tile adhesion

 ECOCORK CAN ALSO BE USED OVER UNDERFLOOR HEATING.

RANGE OVERVIEW

| Product Code            | ecoCORK-MF3 | ecoCORK-MF4 | ecoCORK-MF5 | ecoCORK-MF6 |
|-------------------------|-------------|-------------|-------------|-------------|
| Thickness (mm)          | 3           | 4           | 5           | 6*          |
| Width (m) x Length (m)  | 0.5 x 1     | 0.5 x 1     | 0.5 x 1     | 0.5 x 1     |
| Carton size - Sheets/m2 | 100sh/50m2  | 76sh/38m2   | 60sh/30m2   | 52sh/26m2   |
| Performance (Lnt,w)**   | 45          | 44          | 44          | 43          |

\*Special order \*\*Based on average performance, refer to complete testing for different scenarios  
Additional thicknesses 7mm - 12mm available on project order.



## PRODUCT DESCRIPTION

ecoCORK is produced from a blend of different sized cork grains. These specialised cork grains are then compressed to a certain density to maximize the products acoustic performance. ecoCORK is a non-toxic, natural and environmentally friendly product. It does not absorb water or support the growth of mould in moist situations, provides thermal insulation and stress crack protection for floor coverings, and is also fire retardant.

ecoCORK is also lightweight making transport and handling of the product on site easier for the installer.

ecoCORK can either be floated over the sub-floor or direct stuck using a number of different methods and brands to suit many different floor coverings.

**Based on the Association of Australasian Acoustical Consultants (AAAC) 'Guideline for Apartment and Townhouse Acoustic Rating', ecoCORK rates as 5 star product!**



## THERMAL PROPERTIES (ISO 8301)

Thermal Conductivity: 0,038 W/mo K

Thermal Resistance: 0,132 m2o K/W

## PHYSICAL AND MECHANICAL PROPERTIES (ISO 7322)

Specific Weight: 150-200 kg/m3

Tensile Strength: > 200 KPa

Compression (0,7MPa): 30%

Recovery after 0,7MPa: > 70%

Durability: Lifetime of the building

## ACOUSTIC BENEFIT (ISO 10140-1, ISO 10140-3 & ISO 10140-4)

NON GLUED LAMINATE FLOORS



$\Delta L_w = 20\text{dB}$

NON GLUED TIMBER FLOORS



$\Delta L_w = 24\text{dB}$

GLUED DOWN TIMBER FLOORS



$\Delta L_w = 26\text{dB}$



# TESTING RESULTS



| Test   | Type                    | ecoCORK | Slab                    | Improvement | L <sub>n</sub> T,W |
|--------|-------------------------|---------|-------------------------|-------------|--------------------|
| Test 1 | 14mm Floating Timber    | MF4     | 200mm Suspended Ceiling | 20          | 44                 |
| Test 2 | 15mm Engineered Adhered | MF3     | 200mm Concrete Ceiling  | 12          | 57                 |
| Test 3 | 15mm Floating Timber    | MF5     | 200mm Concrete Ceiling  | 16          | 53                 |
| Test 4 | 14mm Floating Timber    | MF6     | 150mm Suspended Ceiling | 22          | 43                 |
| Test 5 | 13.5mm Timber Adhered   | MF5     | 190mm Concrete Ceiling  | 17          | 48                 |
| Test 6 | 10mm Timber Adhered     | MF3     | 140mm Concrete Ceiling  | 26          | 52                 |

\*See individual test results below for more information

## Disclaimer

This Acoustic test is provided 'as is' without any representation or guarantees, express or implied. ecoCORK Acoustics Australia "eCORK" makes no representations or guarantees in relation to this Acoustic Test or the information and materials provided herein. The information and data collected herein are based on industry accepted testing methods. It is intended as descriptive of the performance characteristics and capabilities of eCORK acoustic underlays and does not certify for a specific project. Although all efforts are taken to include accurate up to date information, without prejudice to the generality of this paragraph, eCORK does not guarantee or warrant that the information in this Acoustic Test is complete, true, accurate or non-misleading. This Acoustic Test was provided solely for information purposes. You should not act upon information without consulting eCORK or an appropriate Acoustical Consultant. Whilst these tests provide expected results, the performance of the product can vary depending on many variables such as but not limited to building design, floor materials and density, room layout and installation method.



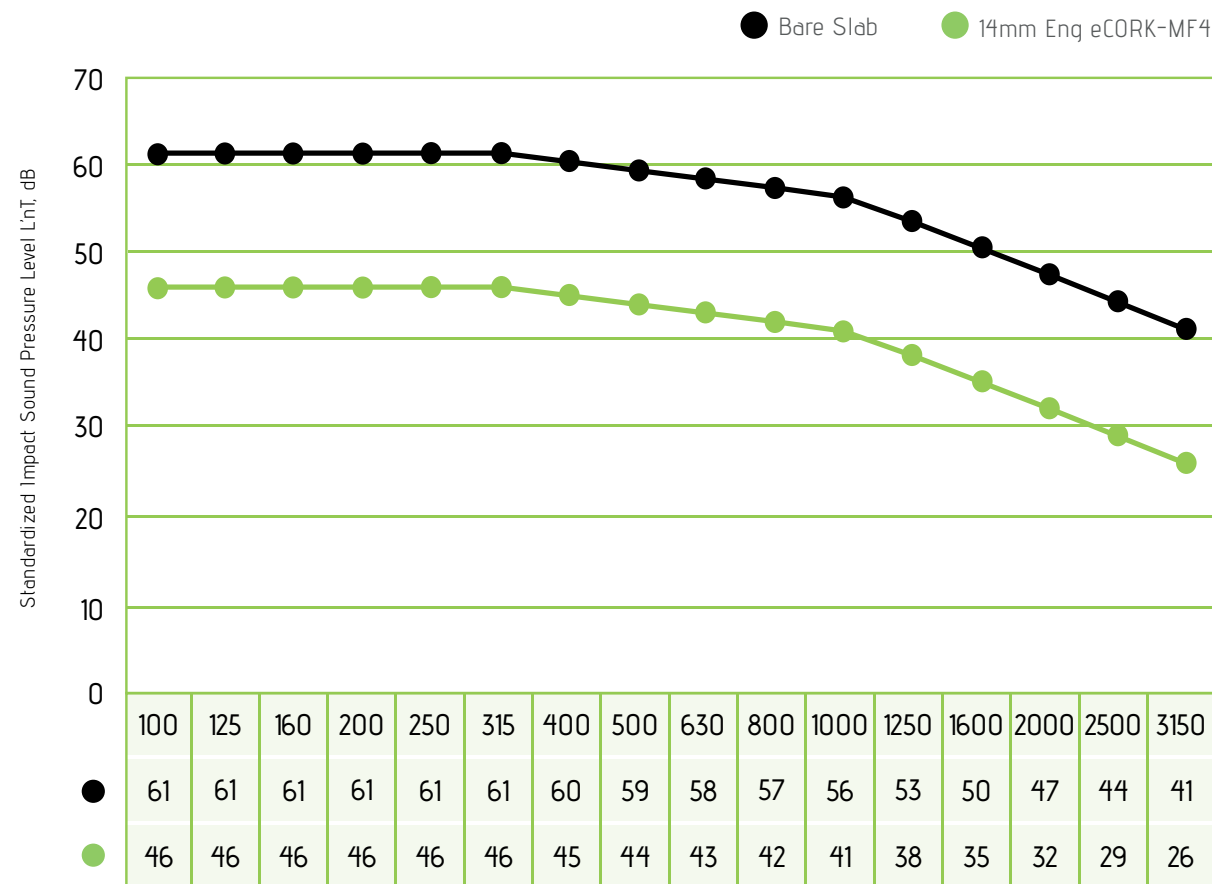
# ACOUSTIC TEST 1



## Engineered Timber floated over ecoCORK-MF4

ISO 140-7 1998

**Location:** Elizabeth Ave, Broadbeach, QLD, Australia  
**Test Date:** 30/7/2013  
**Constructions:** 200mm Concrete slab. Suspended ceiling below.  
14mm Engineered Timber, floated over ecoCORK-MF4 4mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF4 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 64               | 44               | 20 dB       | YES            | 5 Star      |



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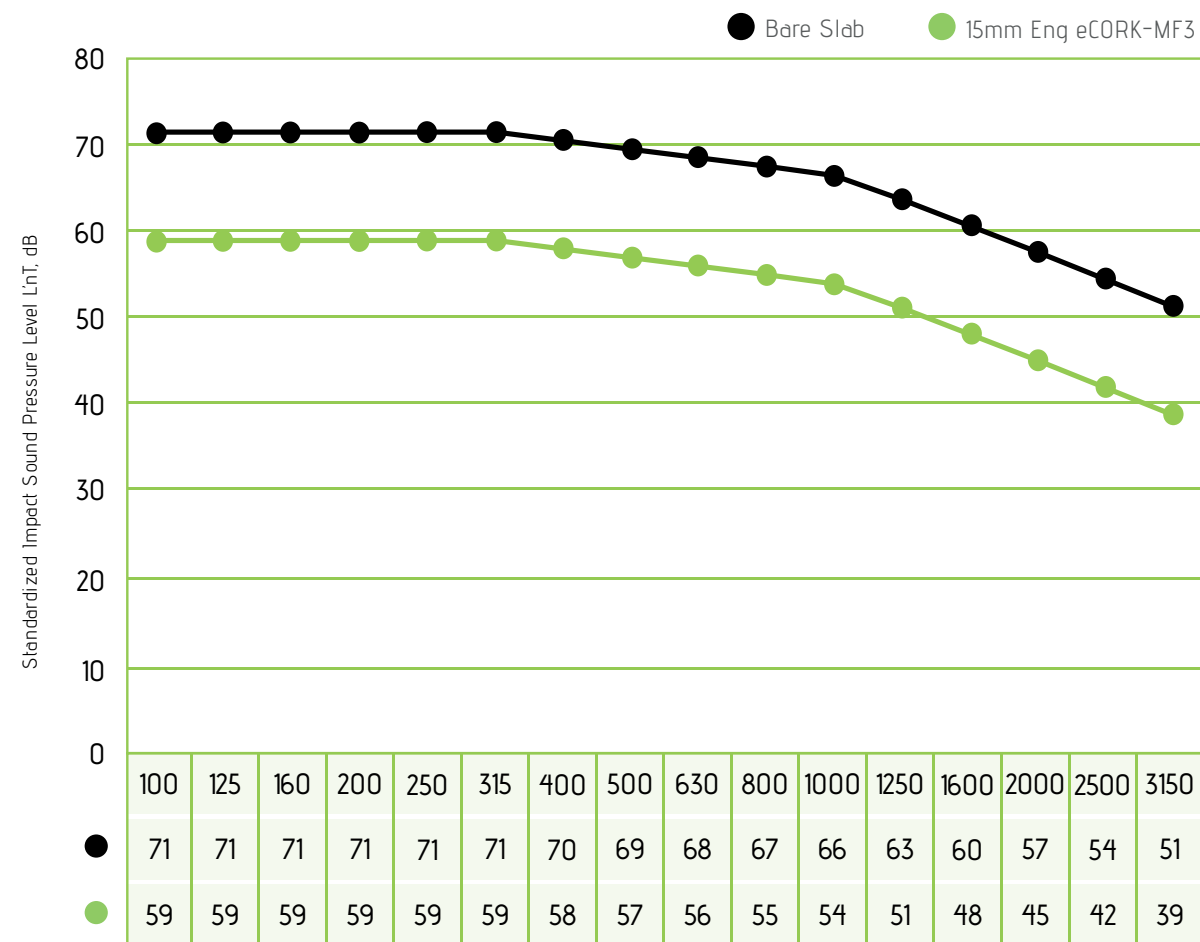
# ACOUSTIC TEST 2



## Engineered Timber adhered over ecoCORK-MF3

ISO 16283-2 2015

**Location:** Dogget Street, Brisbane, QLD, Australia  
**Test Date:** 1/3/2018  
**Constructions:** 200mm Concrete slab. Concrete ceiling below. No suspended ceiling.  
15mm Engineered Timber, adhered over ecoCORK-MF3 3mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF3 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 69               | 57               | 12 dB       | YES            | 3 Star      |



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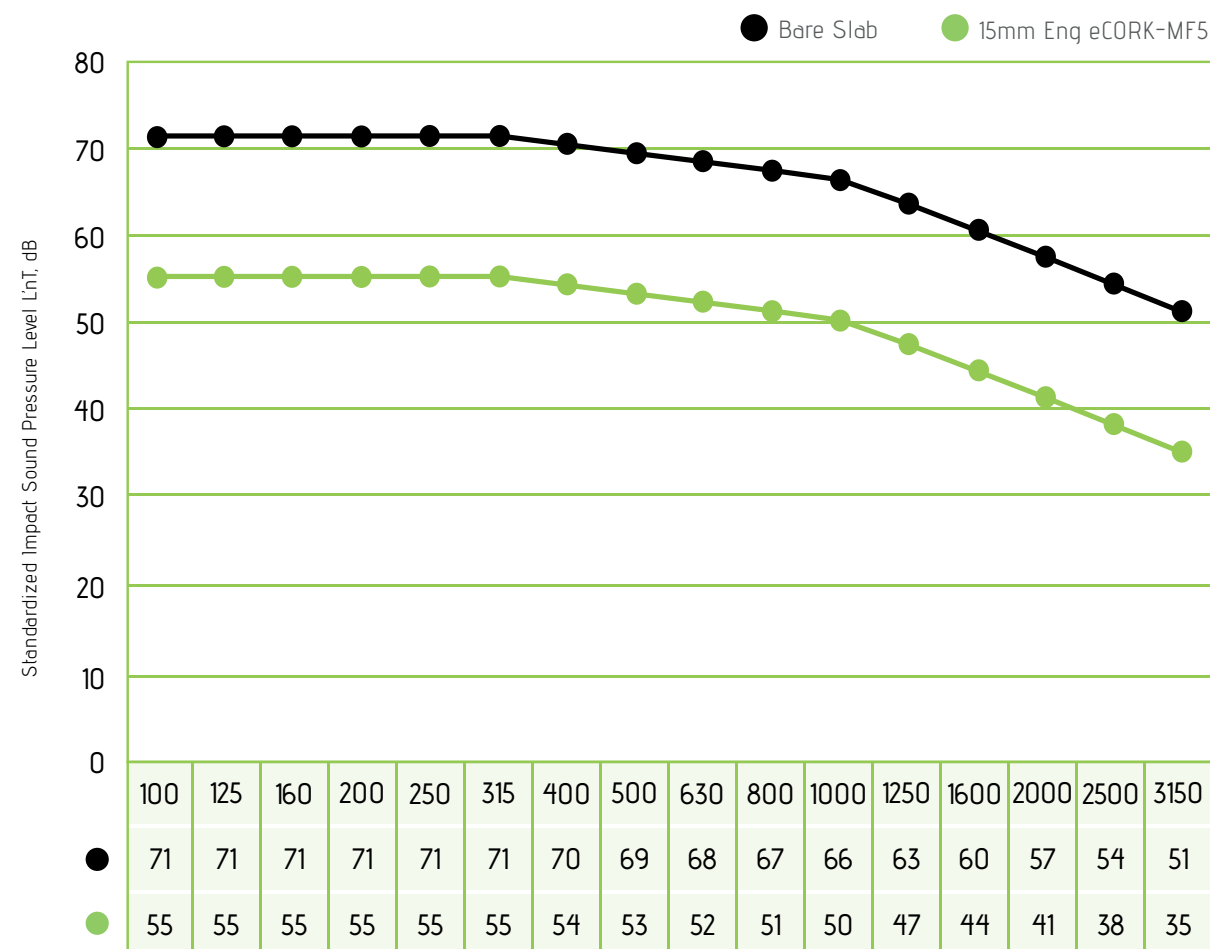
# ACOUSTIC TEST 3



## Engineered Timber floated over ecoCORK-MF5

ISO 16283-2 2015

**Location:** Dogget Street, Brisbane, QLD, Australia  
**Test Date:** 1/3/2018  
**Constructions:** 200mm Concrete slab. Concrete ceiling below. No suspended ceiling.  
15mm Engineered Timber, floated over ecoCORK-MF5 5mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF5 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 69               | 53               | 16 dB       | YES            | 4 Star      |



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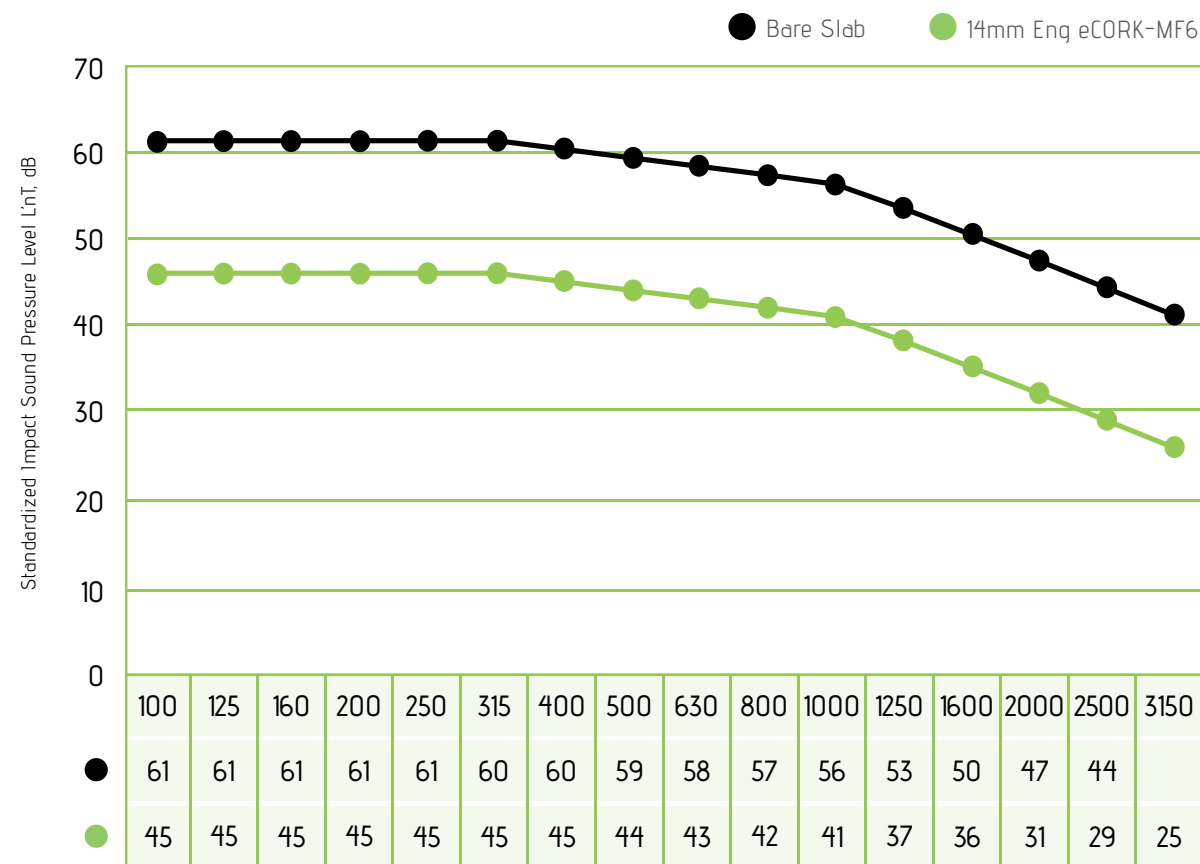
# ACOUSTIC TEST 4



## Engineered Timber floated over ecoCORK-MF6

ISO 140-7:1998 & ISO 717-2:1996

**Location:** Ephraim Island, Paradise Point, QLD, Australia  
**Test Date:** 7/3/2013  
**Constructions:** 150mm Concrete slab Suspended ceiling,  
14mm Engineered Timber, floated over ecoCORK-MF6 6mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF6 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 65               | 43               | 22 dB       | YES            | 5 Star      |



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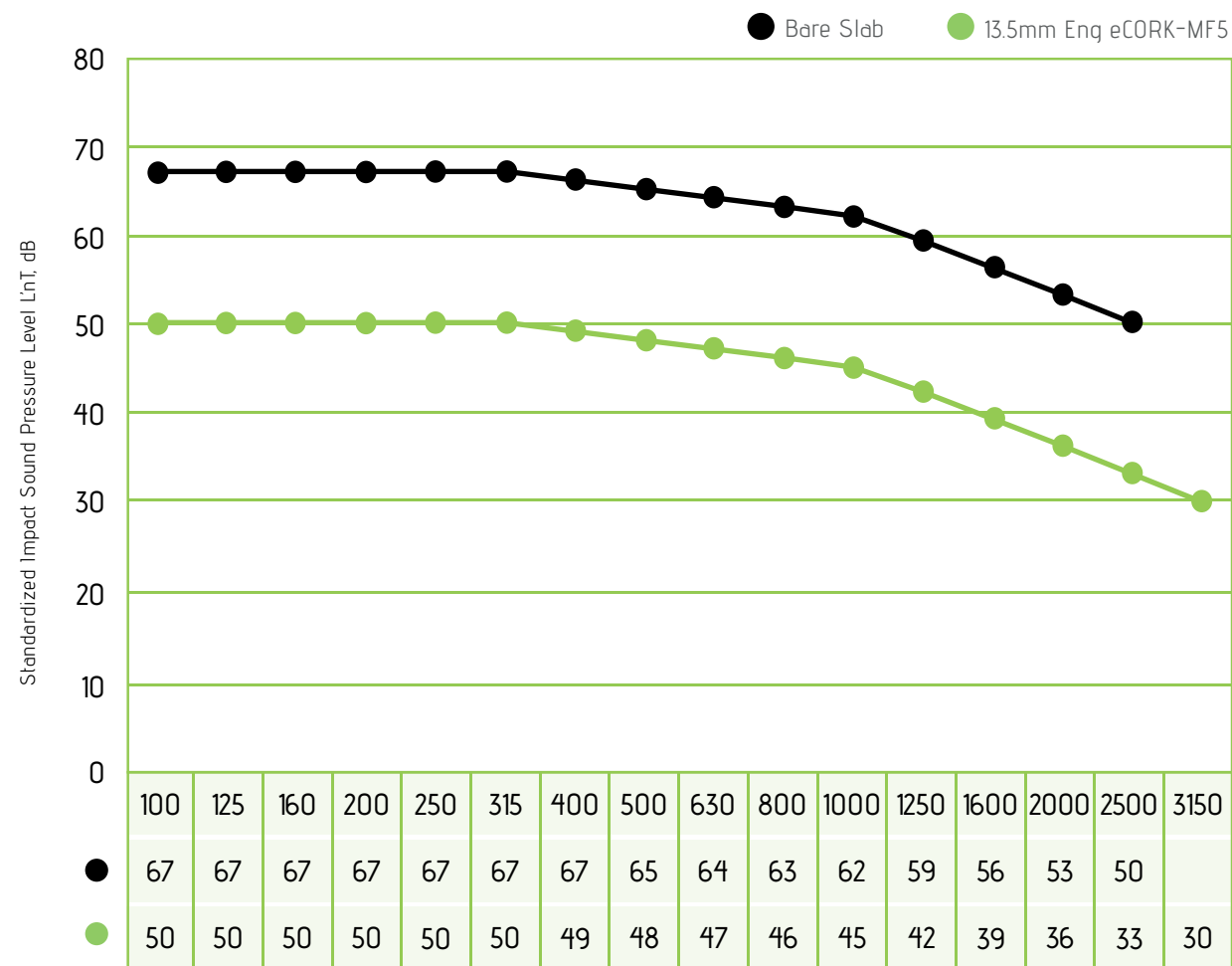
# ACOUSTIC TEST 5



## Engineered Timber adhered over ecoCORK-MF5

ISO 140-7: 1998 & 717-2:1996

**Location:** Queen Street, Brisbane, QLD, Australia  
**Test Date:** 2/6/2016  
**Constructions:** 190mm Concrete slab Concrete ceiling below. No suspended ceiling.  
13.5mm Engineered Timber, adhered over ecoCORK-MF5 5mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF5 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 65               | 48               | 17 dB       | YES            | 4 Star      |



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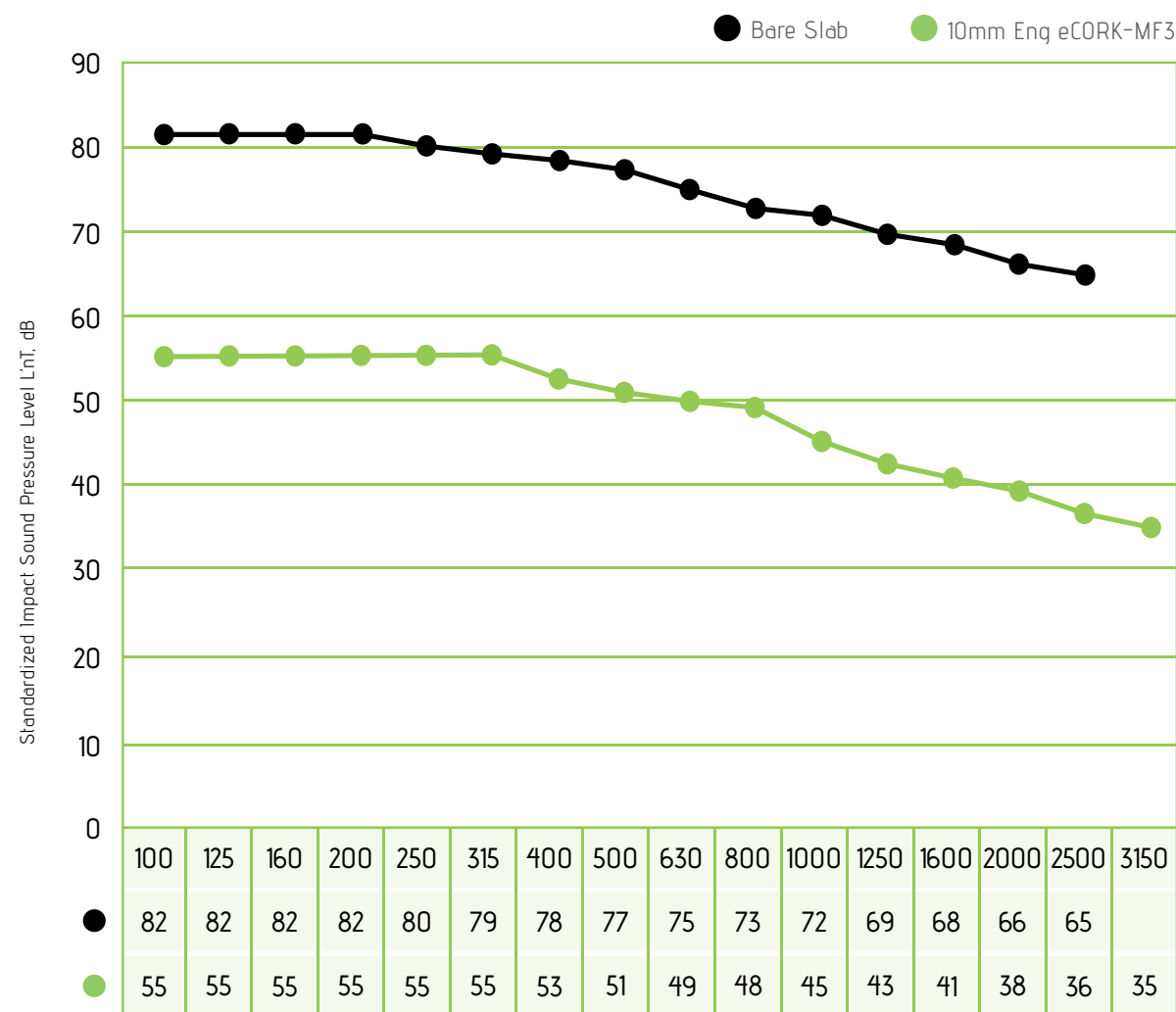
# ACOUSTIC TEST 6



## Engineered Timber adhered over ecoCORK-MF3

ISO 140-1: 2010 & 717-2:2013

**Location:** Portugal  
**Test Date:** 2013  
**Constructions:** 140mm Concrete slab. Concrete ceiling below. No suspended ceiling.  
10mm Engineered Timber, floated over ecoCORK-MF3 3mm Acoustic Underlay.



## Results

| Bare Slab L'nT,w | eCORK-MF3 L'nT,w | Improvement | BCA Compliance | AAAC Rating |
|------------------|------------------|-------------|----------------|-------------|
| 78               | 52               | 26 dB       | YES            | 5 Star      |



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# PORTFOLIO

## ECOCORK PROJECTS

ecoCORK has been involved in many different projects around Australia. These include one off projects and complete high-rise buildings.

To see more projects  
visit [www.ecoCORK.com.au](http://www.ecoCORK.com.au)  
or Instagram @ecocorkaus

### CHEVRON REINAISSANCE



Chevron Renaissance is a \$400 million development on the Gold Coast in Queensland, Australia. The development comprises of 713 individually owned residential lots located above the Chevron Renaissance Shopping Centre.



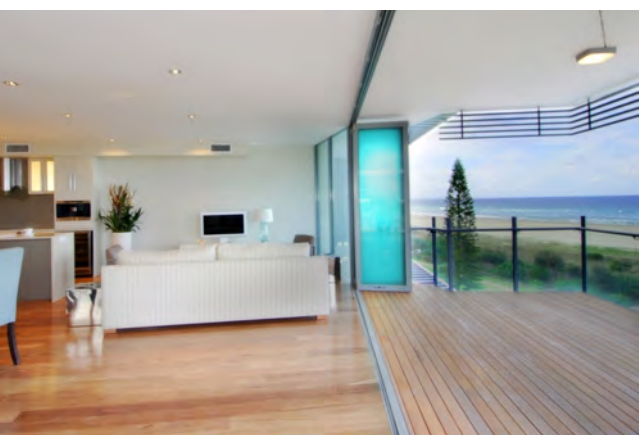


## GRAND MARINER



Grand Mariner Residential Resort is a unique residential estate situated on the beautiful Macintosh Island, also known as Paradise Waters, Surfers Paradise.

## KIRRA WAVE



Architecturally designed, Kirra Wave boasts exceptional features throughout and offers privacy and luxury during your stay. Care and taste has gone into combining style with substance with beautiful Blackbutt floors throughout.



## YVE APARTMENTS



It's not often that you can confuse a high-rise residential apartment building with a piece of sculpture. But that is exactly what architects have tried to invoke with the design of YVE. This magnificent building is in Melbourne's most prestigious Boulevard.



## Q1 TOWER



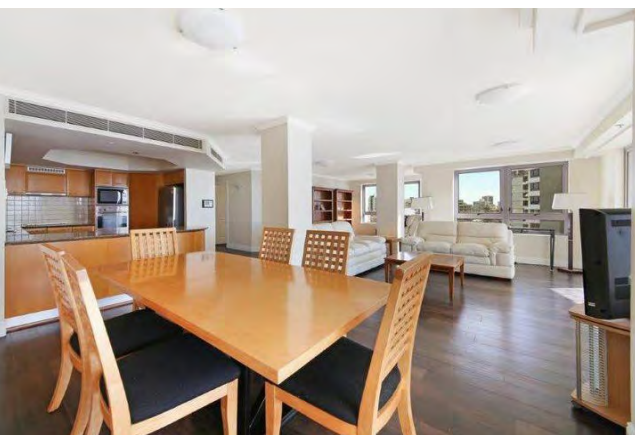
Q1 Tower is a 322.5-metre skyscraper in Surfers Paradise, Queensland, Australia. The residential tower on the Gold Coast was the world's tallest residential building from 2005 to 2011.





## LA SABBIA

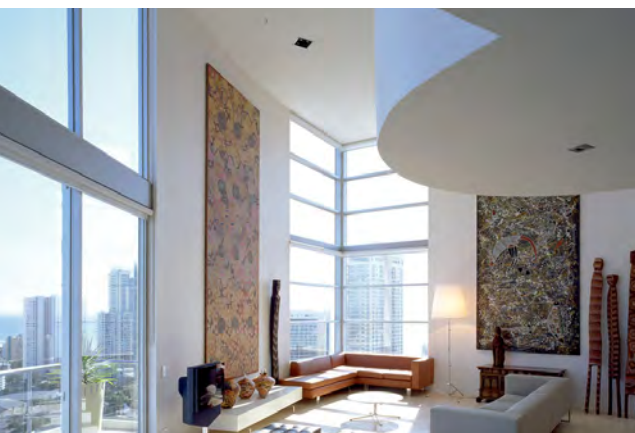
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La Sabbia was designed with the desire of creating a perfect modern and functional living space with luxury quality comforts and aesthetics. Meticulous attention to detail is evident everywhere you look.

## OCEAN SANDS

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The luxurious and relaxing Main Beach accommodation is perfectly located at Tedder Avenue. A boulevard of alfresco cafes, upmarket restaurants, and fashionable shopping, Tedder is where locals go for authentic Gold Coast entertainment and relaxation.

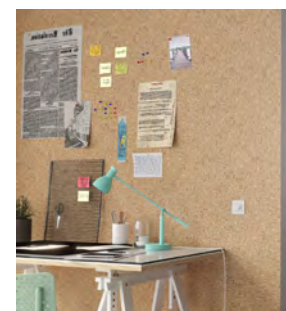
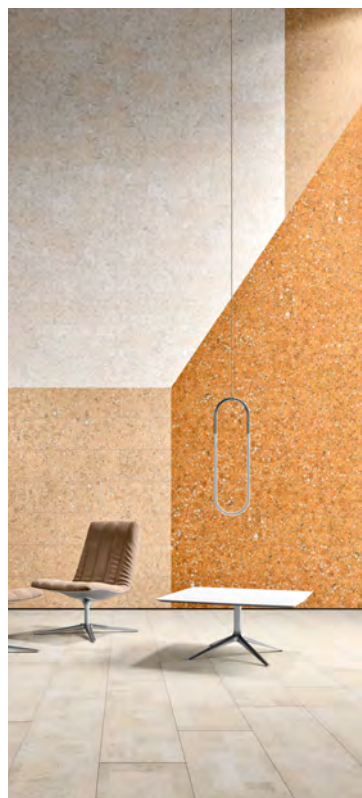


# CORK

## MORE THAN ACOUSTICS

With so many benefits to Cork products, why not also show off its beauty in a number of different ways.  
To see more visit: [bit.ly/ecoCORKother](http://bit.ly/ecoCORKother)

**GO4  
CORK**  
by Amorim







Authorised Distributor

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INDUSTRIES PTY LTD®**



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