

 RESPIRABUILT

Beautiful Healthy Living.

Natural materials for the healthy home



RespiraBlock



RespiraBoard



RespiraDrywall



RespiraWool





RespiraBlock

The **RespiraBlock** provides the highest thermal performance of any hempcrete block available on the market,

A specific and **unique** composition of hemp, dolomitic lime and probiotics provides an **unmatched** thermal **performance** with exceptionally easy and affordable installation.

Characteristics

- ✓ High thermal and acoustic comfort
- ✓ **Vapour open**
- ✓ Resistant to fire, frost, insects and rodents
- ✓ **Carbon negative and 100% natural ingredients**
- ✓ Hypo-allergenic, no VOC and combats Sick Building Syndrome

Applications

- ✓ Construction of insulating and breathable masonry walls
- ✓ **External wall insulation system for existing buildings**
- ✓ Internal wall insulation system for existing buildings
- ✓ **Internal partitions with acoustic insulation**

Laying

The blocks are laid in a thin bed of mortar composed of hemp and lime according to the proportions indicated in the installation manual.

A handsaw, reciprocating saw or alligator saw can be used to cut the blocks.

Internal surfaces and partition walls can be finished with a lime mortar, a lime wash or a clear coat. Please refer to our design Booklet for further finishing information.

External facing blockwork must be coated with a lime plaster or render.

NB. [height] +/- 1 cm	RP8	RP12	RP20	RP30
Sizes - Length, Height, Thickness - cm	50x20x8	50x20x12	50x25x20	50x20x30
Density - Kg/m3 dry	310	310	310	310
Conductivity - W/mk LAMBDA λ	0,048	0,048	0,048	0,048
R-Value	R-1.84	R-2.67	R-4.34	R-6.42
Total thermal resistance (Rt) - m²K/W	1,84	2,67	4,34	6,42
Thermal offset without plaster	2h 49'	5h 24'	10h 44'	17h 22'
Specific heat capacity - J/KgK	1280	1280	1280	1280
Vapour permeability - μ	4,5	4,5	4,5	4,5
Sound absorption coefficient (aw)	1 - CLASSA	1 - CLASSA	1 - CLASSA	1 - CLASSA
Soundproofing index (Rw) - dB	-	-	-	-
Compressive strength - N/mm2	0,8	0,8	0,9	0,9
Shear traction with rawplug - kN	2,067	2,067	2,067	2,067
Orthogonal traction with rawplug - kN	2,734	2,734	2,734	2,734
Reaction to fire with plaster	B - s1, d0			
Fire resistance without plaster - min	-	BAL-29	-	-





RespiraBoard

RespiraBoard® is a mortar free, screw-fix semi-rigid insulation board. A renderable interior lining made from industrial hemp.

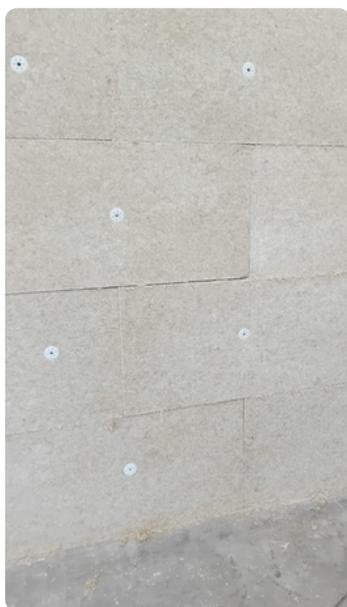
Breathable and vapour-open, it safely transports excess moisture outwards, helping to keep surrounding materials dry and preserve buildings. Suitable for use as an internal insulation board, RespiraBoard® can be applied in both retrofit projects and new-builds, whether in timber frame or solid masonry.

Characteristics

- ✓ High thermal comfort
- ✓ **Vapour open**
- ✓ Resistant to termites, frost, insects and rodents
- ✓ **Low carbon - net storage of carbon**
- ✓ Circular product - can be reused, shredded and remade

Applications

- ✓ Internal rigid insulation board for retrofit and new-builds
- ✓ **Internal wall lining system**
- ✓ **Ceiling lining for breathable roof cavities**



NB. [height] +/- 1 cm	RB 20	RB 40	RB 60
Sizes - Length, Height, Thickness - cm	60x120x2	60x120x4	60x120x6
Density - Kg/m3 dry	100	100	100
Conductivity - W/mk LAMBDA\ R-Value	0.041 R-0.49	0.041 R-0.98	0.041 R-1.46
Specific heat capacity - J/KgK	2202	2202	2202
Vapour permeability - μ	≤2	≤2	≤2
Compressive strength - kPa	≥25	≥25	≥25
Sound absorption (αw)	1.00 - Class A	1.00 - Class A	1.00 - Class A
Reaction to fire (BS EN 13501-1)	C-s2,d0	C-s2,d0	C-s2,d0





RespiraDrywall

RespiraDrywall® is an ecological, vapour-permeable drywall panel made from cleaned hemp hurds and a formaldehyde-free binder. Dimensionally stable, capillary-active, and designed for healthy indoor environments.

The **RespiraDrywall** can be applied as a wall lining or ceiling panel with excellent acoustic damping and moisture-regulating properties. A vapour-open, natural alternative to gypsum plasterboard, OSB, and particleboard.

Characteristics

- ✓ Good acoustic damping and thermal mass
- ✓ **Vapour-permeable and capillary-active**
- ✓ Dimensionally stable and ultralight
- ✓ **Low carbon and CO₂-sequestering**
- ✓ Formaldehyde-free, no VOC, hypo-allergenic

Applications

- ✓ Interior walls and ceiling linings
- ✓ Sheathing cold concrete walls for commercial applications
- ✓ Attic and timber beam ceiling refurbishment
- ✓ **Render carrier board (clay or lime plaster)**
- ✓ Renovation of moisture-sensitive interior spaces



NB. [height] +/- 1 cm	RD18	RD30
Sizes - Length, Height, Thickness - cm	80x120x1.8	80x120x3.0
Density - Kg/m ³ dry	320	320
Thermal offset with plaster	101'	101'
Specific heat capacity - J/KgK	2100	2100
Vapour permeability - μ	5	5
Flexural strength - N/mm ²	1.4	1.4
Water absorption (short-term) - kg/m ²	<1	<1
Reaction to fire	E*	E*





RespiraWool

RespiraWool® is a natural insulation made from technical hemp fibres, offering excellent thermal and acoustic performance.

Designed for diffusely open constructions, it regulates moisture thanks to its low vapour diffusion resistance and is a sustainable alternative to polystyrene, glass, or stone wool. **RespiraWool** helps create healthier, more comfortable buildings.

Characteristics

- ✓ High thermal and acoustic comfort
- ✓ **Vapour open**
- ✓ Low carbon and made with 85% natural fibres (15% mesh)
- ✓ **Hypo-allergenic, no VOC and combats Sick Building Syndrome**

Applications

- ✓ Perfect for wall cavity insulation
- ✓ **Areas where sound absorption is important**
- ✓ Ceiling and roof insulation
- ✓ **Partition walls**

Synthetic insulation	Natural insulation	NB. [height] +/- 1 cm	RW90
Very, very slow to dry when wet	Dries out quickly, even after absorbing moisture (and wicks it away)	Sizes - Length, Height, Thickness - cm	90x450x1110
Loses its insulation value from condensation	Still insulates while holding moisture	Density - Kg/m3 dry	30 - 40
Moisture gets trapped and lingers	Breathes — takes in and releases moisture freely	Conductivity - W/mk LAMBDA\ R-Value	0,041 R-2.2
Sags, slumps, and breaks down over time	Holds shape, stays solid, and lasts for decades	Thermal offset with plaster	-
	Brilliant for the planet and your lungs	Specific heat capacity - J/KgK	-
		Vapour permeability - μ	≤ 2
		Sound absorption coefficient (aw)	0,70 - Class C
		Reaction to fire	Class C - s2, d0





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Samuel Nolan

Will's guidance has been instrumental in my journey toward incorporating hempcrete into my home.



Thomas E Dodd

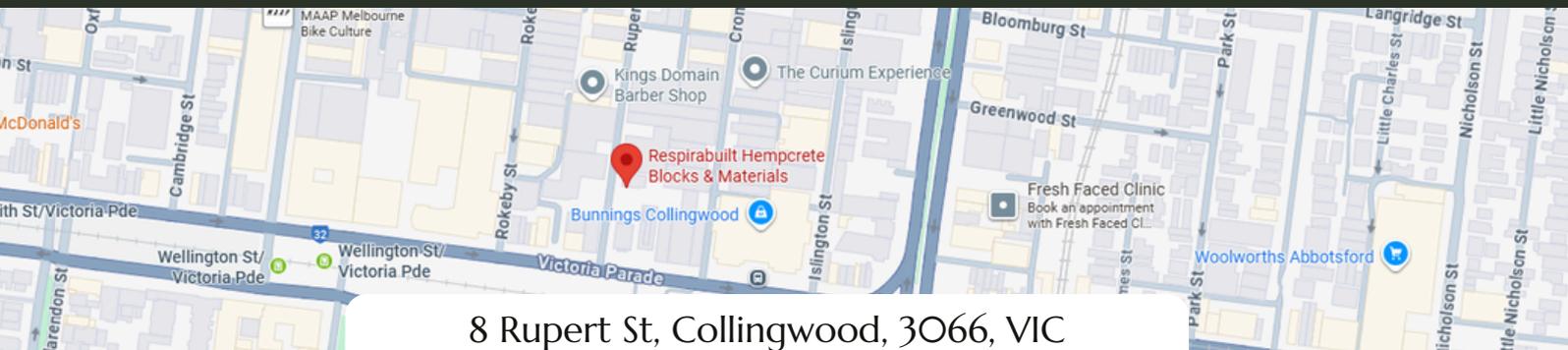
Fantastic group! Excellent sustainable material. We used Will and his team and their hempcrete product on a job.



Yanis Petros

We were so impressed with both the product and their quality workmanship. I can't recommend Will and the team at Respira highly enough!

Check all reviews in our [Google Page](#)



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