RESPIRABUILT



RespiraDrywall

Healthy indoor air, built into the wall.

RespiraDrywall is a hemp board that goes up where plasterboard would. It is made from cleaned hemp hurds and a formaldehyde-free, VOC-free binder: no gypsum, no cement. It lets the wall breathe, and you can paint it, plaster it with clay or lime, or leave it exposed.

Characteristics

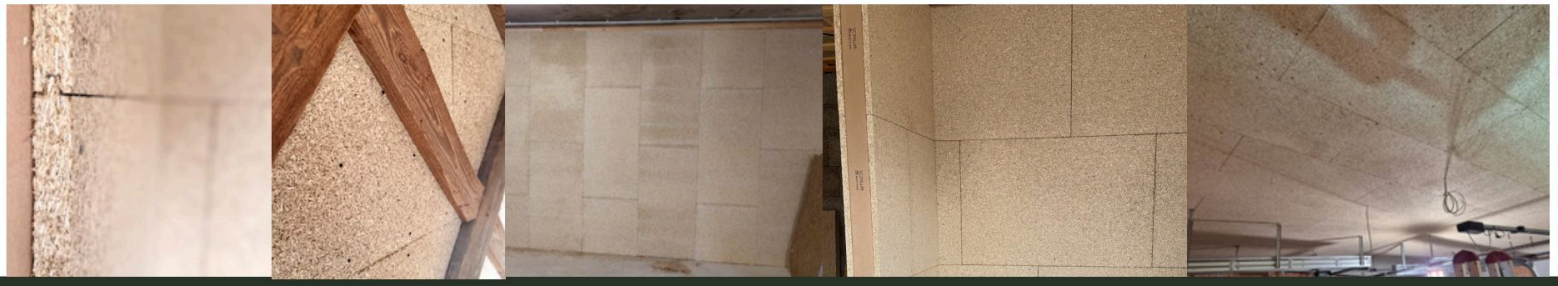
- ☑ No formaldehyde and no VOCs
- ☑ Vapour-permeable and capillary-active
- ☑ Light: about 5 kg a sheet (18mm)
- ☑ Made from hemp
- ☑ Takes paint, clay or lime plaster directly

Applications

- ☑ Interior walls and ceiling linings
- ☑ Internal and partition walls
- ☑ Loft conversions and attic ceilings
- ☑ Render carrier board (clay or lime plaster)
- ☑ Wall linings and furring (not wet areas)



The board alone	18mm	30mm
Standard sheet - mm	800 x 1200	800 x 1200
Large format - mm	600 x 2400	600 x 2400
Edge	Square	T&G
Weight - kg/m²	5.30	9.60
Conductivity λD - W/m·K	0.057	0.057
R-value, board alone	R 0.32	R 0.53
Vapour resistance - μ	5	5
Specific heat - J/(kg·K)	2100	2100



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RESPIRADRYWALL · TECHNICAL DATASHEET

Technical data and installation

A vapour-permeable drywall board made from cleaned hemp hurds and a formaldehyde-free binder. It is dimensionally stable and capillary-active, made for wall and ceiling linings in interior construction. It takes up moisture from the air and gives it back, so rooms stay more even. Light, easy to work, no sagging, a clean screw pattern.

Technical data

	18 mm	30 mm
Edge	Square	Tongue and groove
Standard format – mm	1200 × 800	1200 × 800
Large format – mm	2400 × 600	2400 × 600
Weight – kg/m²	5.30	9.60
Thermal conductivity λD – W/m·K	0.057	0.057
Water-vapour diffusion resistance μ	5	5
Specific heat capacity – J/(kg·K)	2100	2100
Short-term water absorption	< 1 kg/m²	< 1 kg/m²
Swelling after 24 h	< 1–2 %	< 1–2 %
Flexural strength – N/mm²	1.4	1.4
Modulus of elasticity E – N/mm²	140	140
Per pallet, standard format	56 sheets, 53.76 m²	33 sheets, 31.68 m²
Per pallet, large format	56 sheets, 80.64 m²	32 sheets, 46.08 m²

Swelling after 24 h: under 1–2 %. This is the standard soak test for wood-based boards (EN 317): a sample is fully immersed in water at 20 °C for 24 hours, then its thickness is measured again. RespiraDrywall grows by less than 2 %. For comparison, the European standards allow OSB/3 to swell up to 15 % (EN 300), moisture-resistant particleboard (P5) up to about 10 % (EN 312), and standard MDF typically swells 10–15 %. Plasterboard is not rated this way, because its gypsum core softens and loses strength when it gets wet.

Installation

- Framing: timber or metal studs at 300–600 mm centres.
- Fixing: coarse-thread drywall or timber screws every 200–250 mm. Nailing or stapling also possible on timber studs.
- Cutting: circular saw, jigsaw or table saw (the same tools as for OSB or wood-fibre board).
- Joints and surface: fill the joints; joint reinforcement optional. Finish with clay or lime plaster, paint or wallpaper.
- Large format (2400 × 600 mm): every board edge must land on a stud. At 400 mm centres add a stud or noggin, or use 300 mm centres.
- Store dry and flat, protect from moisture, transport horizontally. Not for wet rooms.

Material and ecology

- Cleaned, dried hemp hurds
- Formaldehyde-free binder, no artificial additives
- Free of gypsum and cement
- Stores biogenic carbon in the hemp
- Fully recyclable (material recycling possible)
- Replaces plasterboard, OSB, particleboard and wood-fibre board

