



FBT P2R 45 to 200 mm

Panels with two reflected faces for insulation from the inside
Installation on roofs, walls, floors, ceilings,...



THE INNOVATIVE AND EFFICIENT COMBINATION OF A BIOSOURCED INSULATION WITH 2 REFLECTED SIDES



A RICE STRAW PANEL (PR)

- Thermally efficient
- Dense
- Durable over time, does not settle
- Healthy, with no impact on health

A LOW EMISSIVITY FILM ON EACH SIDE, HIGHLY ENERGY-REFLECTING

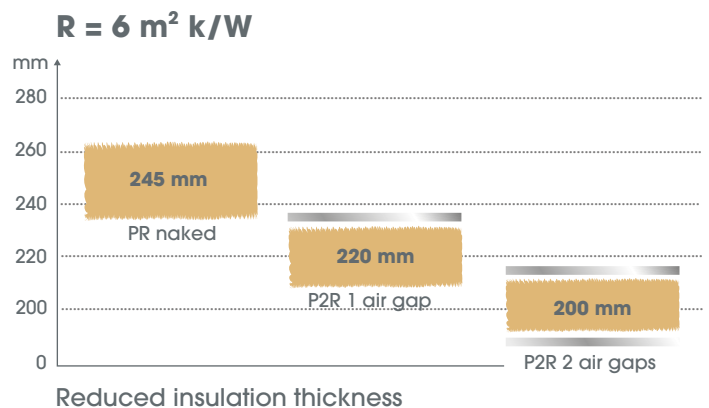
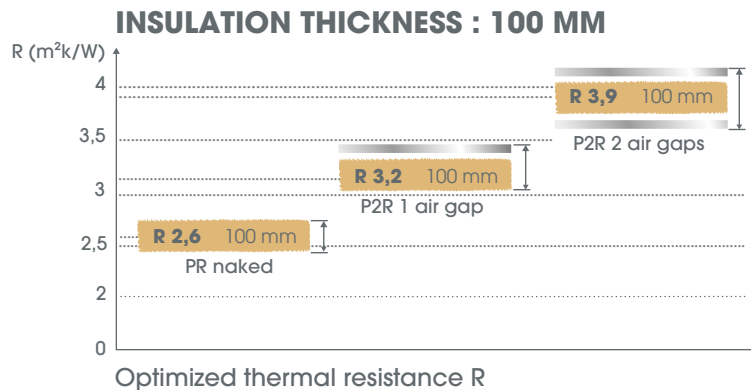
- 94% of the reflected radiation:
 - Increased overall thermal resistance
 - Consideration of non-ventilated reflected air slides
 - Effect of warm walls for a better feeling of physiological comfort
 - Improves summer comfort on the roof
- Microperforated to preserve the natural moisture regulating properties of rice straw

A LOW-CARBON INSULATOR


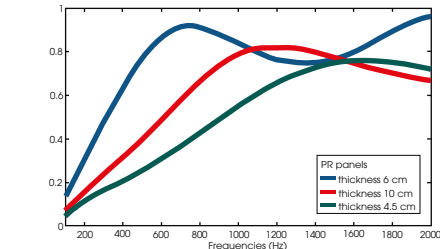
Consisting of 92% vegetable fibres and a reduced thickness for an equivalent thermal resistance, the environmental impact of P2R insulating panels is really limited.

Rice straw, which is renewable and made from recycling, makes a significant contribution to carbon storage and the preservation of natural resources.

FBT Insulation develops a range of semi-rigid insulating panels made of natural vegetable fibers for new construction and renovation of buildings.



Technical data

Composition	PR panel : 92 % rice straw 8 % binder, hot melt fiber	Reflective films : Microperforated metallized PET (Ø 0.8 mm - 6.7 holes/cm ²) Emissivity ε: 0.06, 94% reflection of infrared radiation
Thermal conductivity (lambda) λ	0.039 W/m.K	NF EN 12667
Density	50 kg/m ³ ±5	NF EN 1602
Water vapour transmission factor	μ = 4	NF EN 12086
Specific heat capacity	1 790 J/kg.K	TPS Method (Transient Plane Source)
Reaction to fire	P2R : Unclassified	
Resistance to keratophagous, crawling, flying insects (mites, ants, cockroaches, flies,...) and dust mites	PR not suitable for consumption by insects that starve to death, without developing and without creating contamination	TEC laboratory test, in accordance with CSTB requirements, Annex D of the CUAP document
Maximum operating temperature	80 °C	
Indoor air quality VOCs (Volatile Organic Compounds) and aldehydes	A+ No emission of volatile pollutants or carcinogenic, mutagenic or reprotoxic substances	 <p>* Information on the level of emission of volatile substances to indoor air with a risk of inhalation toxicity, on a class scale from A+ (very low emissions) to C (high emissions)</p>
High sound absorption capacity	PR 45 mm : α _w = 0.5 (H), class D PR 60 mm : α _w = 0.6 (H), class C PR 100 mm : α _w = 0.8 (H), class B PR 120 mm and thicker: α _w ≥ 0.9 (H), class A according to NF EN ISO 10534-2 : 2003	

FBT P2R	Panel thickness (mm)	Thermal resistance R (m ² K/W)		Phase shift (hours)	Sd value** (meters)	Packages	
		1 air gap*	2 air gaps*			panels / pallet	m ² / pallet
P2R 45	45	1.8	2.5	1h35	0.89	104	74.88
P2R 60	60	2.2	2.8	2h05	0.67	80	57.60
P2R 80	80	2.7	3.4	2h50	0.50	56	40.32
P2R 100	100	3.2	3.9	3h30	0.40	48	34.56
P2R 120	120	3.7	4.4	4h10	0.33	40	28.80
P2R 145	145	4.4	5.0	5h00	0.28	32	23.04
P2R 160	160	4.8	5.4	5h35	0.25	30	21.60
P2R 170	170	5.0	5.7	5h55	0.24	24	17.28
P2R 200	200	5.8	6.4	7h00	0.20	24	17.28

P2R : Rice straw with 2 reflective films

* Non-ventilated air blade ≤ 30 mm with a low emissivity face. Example: space between the insulation and the interior finish.

Dimensions of the panels : 1.2 x 0.6 m, 0.72 m². Pallet of 1.2 x 1.2 m x 2.55 m.

** Resistance to water vapour diffusion.

EASY TO INSTALL

The panels are easily embedded in the gaps between the studs or rafters, with a spring effect.

- The panels do not settle.
- Little dust, no disintegration.
- Scraps are limited and easily reusable for caulking.
- Easy handling and cutting.

Microperforated reflective films do not act as a vapour barrier.

Airtightness system as recommended vapour barrier: Sd: 90 m.

Installations identical to those recommended for PR insulation, detailed in Technical Experimentation Assessment, ATEX n° 2721 walls and n° 2722 roof (attics and floors). Documents can be downloaded from www.fbt-isol.com.

Depending on the application, one or two unventilated air slats are used when installing P2R panels.

Your FBT insulation contact person



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