



Our raw material



Our product

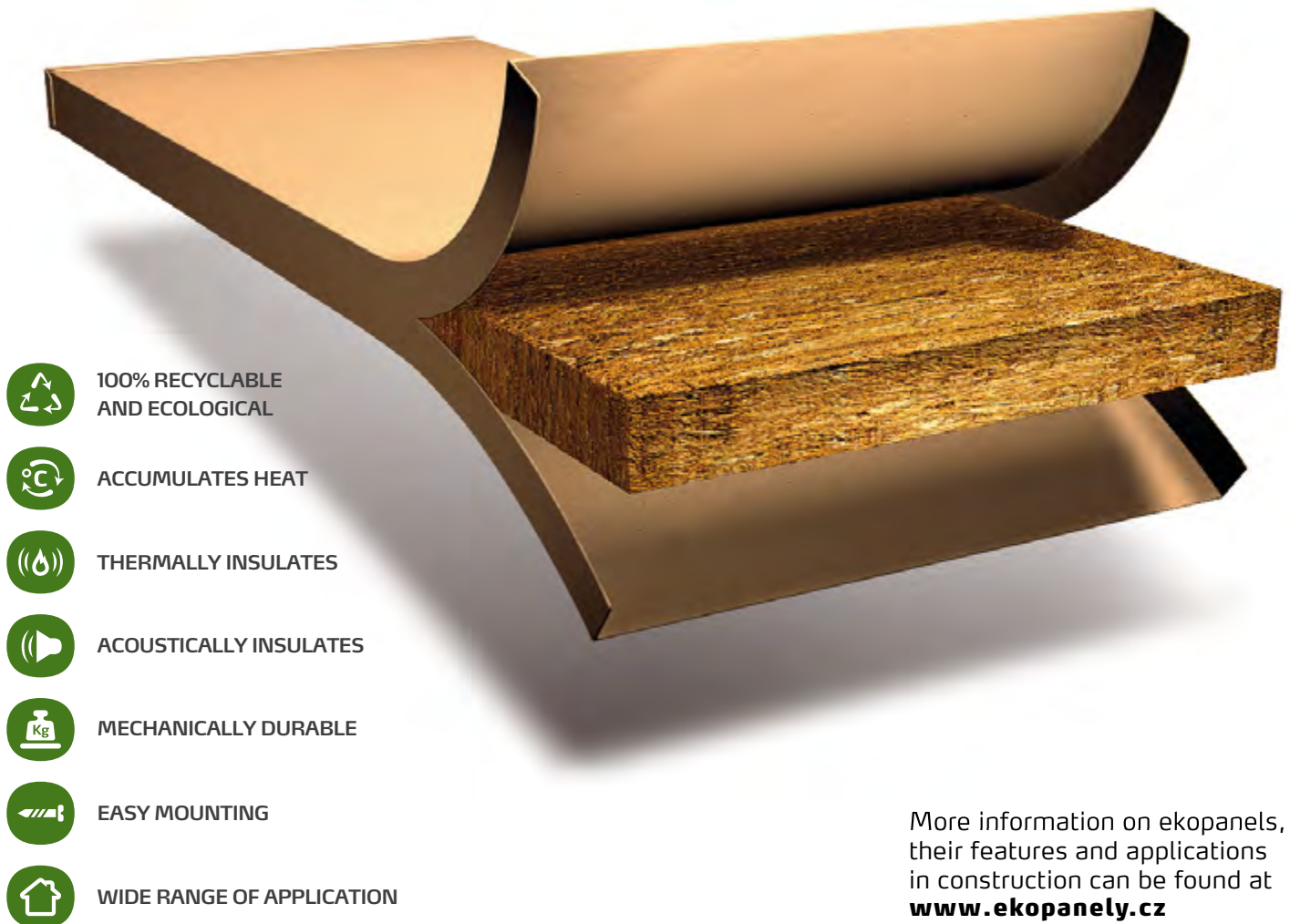


Our buildings and applications

What is an Ekopanel?

An ekopanel is an ecological, construction panel. It is compressed under high temperature and pressure from wheat straw without using a bonding agent and bound with recycled cardboard.

The first panels were constructed after 1945 in Great Britain. After obtaining the know-how and developing its own technology, the EKOPANELY CZ company began to manufacture this building board from the year 1999 under the Ekopanel brand in Jedousov in Přelouč. In the year 2008 the ekopanel won the **Gold Award of the Czech Construction Academy** as an ecological construction product appropriate for the construction of low-energy and passive wood structures.



More information on ekopanel, their features and applications in construction can be found at www.ekopanely.cz



Properties of ekopanel

The properties of ekopanel reduce construction costs and enable quality and economical accommodations.

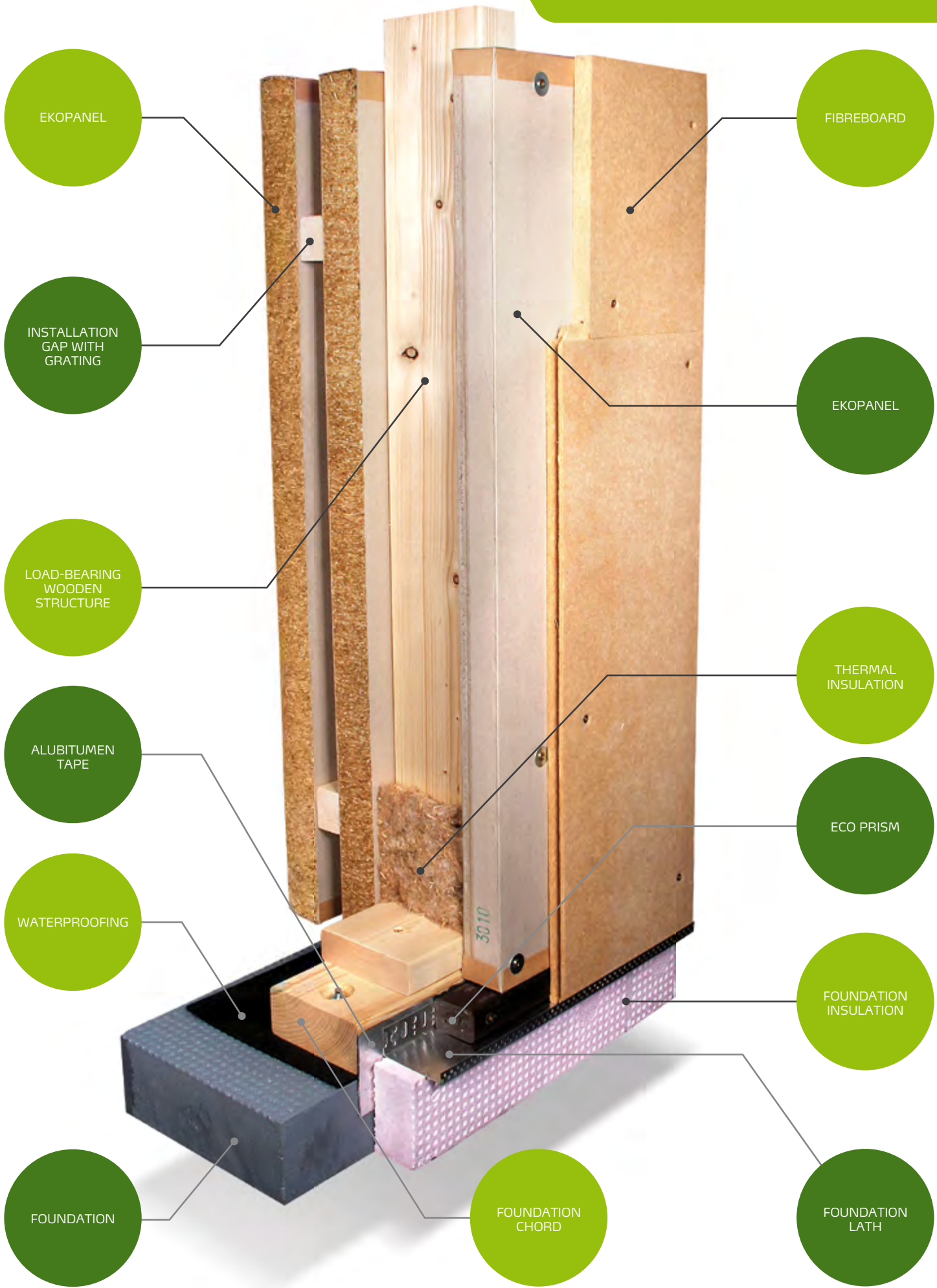
Ekopanel - a recycled paper surface and a wheat straw filling, which has always been a traditional building material. Due to its composition, this natural material provides ekopanel with many excellent qualities. The first of these by far is their heat accumulation capability, which significantly reduces heating

costs, furthermore thermal and acoustic insulating properties, mechanical strength, etc. These advantages allow Ekopanel to be used for all types of houses, loft conversions, as well as self-supporting partition wall subceilings.

As straw and paper are organic materials which can easily be disposed of after the structure is liquidated, ekopanel are completely recyclable.

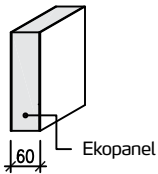
Ekopanel are delivered to the customer already altered to the required length, thereby reducing waste.

Structure of EKO 3 outside walls

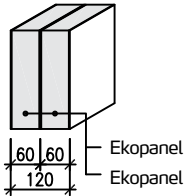


Ekopanel applications

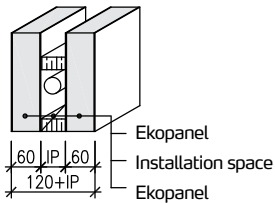
Simple partition



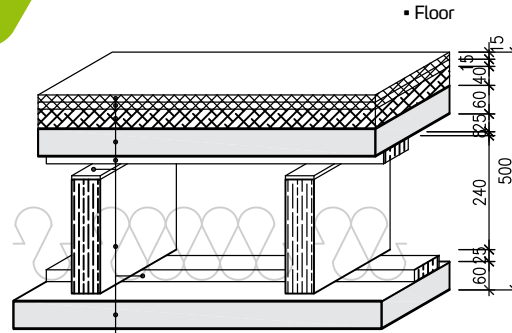
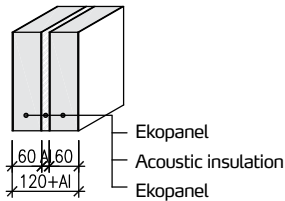
Double partition



Installation partition



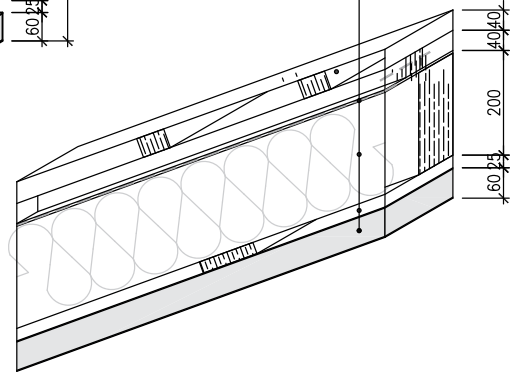
Acoustic partition



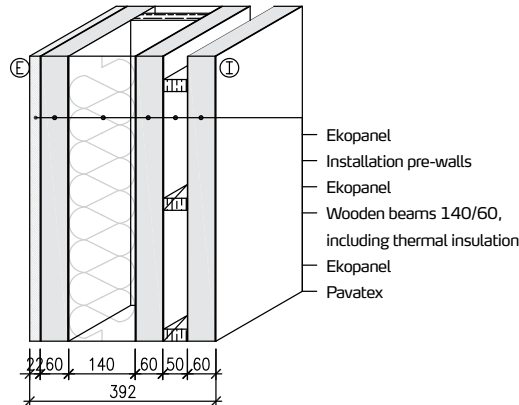
Particle board 2x, laid crosswise
Fibreboard
Ekopanel
Wooden grating under the joints, 400 mm
Fibreboard
Thermal insulation
Ceiling joists 240/60
Wooden grating under the joints, 400 mm
Ekopanel

Subceiling in loft constructions

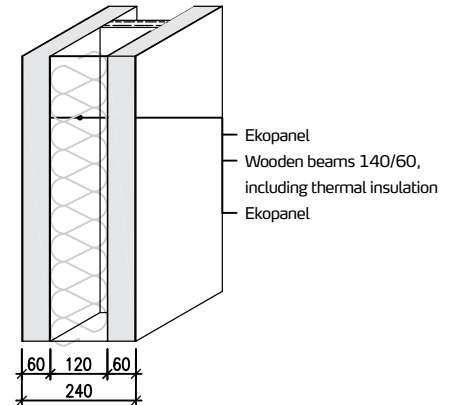
Ekopanel
Wooden grating under the joints,
400 mm
Rafters 80/200
Thermal insulation
Roofing membrane
Battens + scantling 60x40 mm
Roofing material



Exterior load-bearing structure



Interior load-bearing structure



Mechanical/physical properties

Ekopanel are manufactured in two widths, 800 mm and 1200 mm

Dimensions

width 800/1200 mm and thickness 58 mm (+2 mm tolerance) and length 1200-3200 mm

Ekopanel are formatted to the requirements of the customer

Values of heat insulation magnitude

heat transfer coefficient:

$$\lambda = 0,099 \text{ Wm}^{-1} \text{ K}^{-1}$$

$$\text{diffusion resistance: } RD = 4,6 * 109 \text{ ms}^{-1}$$

$$\text{diffusion resistance coefficient: } \mu = 9,7$$

Acoustic dampening values

acoustic dampening of simple partition: 33 dB

acoustic dampening of double partition: 45 dB

Average density

area 19-23 kg/m²

volume 379 kg/m³

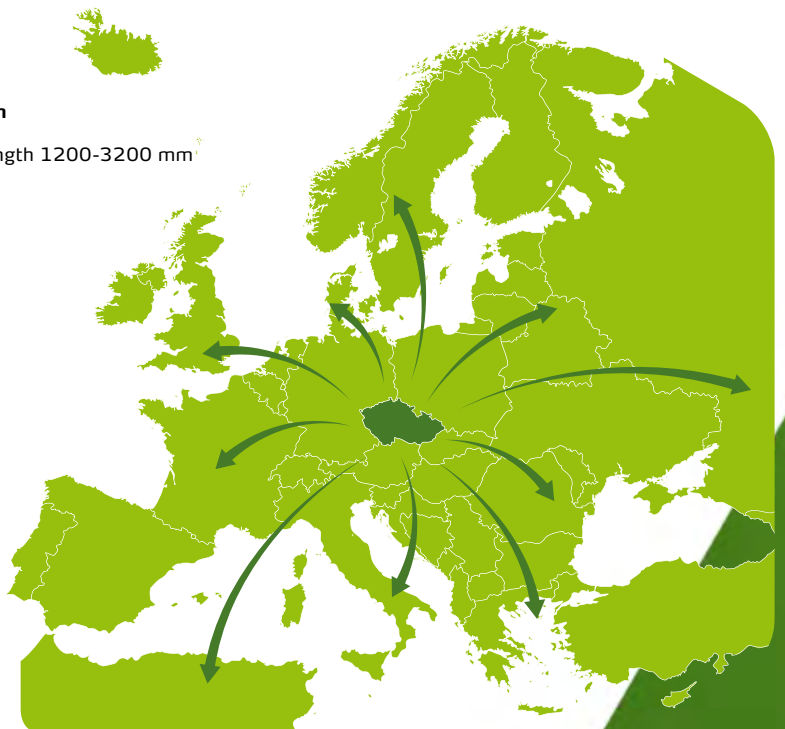
Fire resistance classification

Simple partition EI 30 D3

Subceiling EI 45 DP3

Facing of load-bearing perimeter structure REI 45

fire response: category E



... We export ekopanel from the Czech Republic to all over the world



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More information at www.ekopanely.cz