

K-KONTROL®

BUILDING SYSTEM

PREFABRICATED WOOD-BASED LOADBEARING STRESSED SKIN PANELS



- ❑ K-KONTROL® elements = unique as construction element for wood constructions or combined with other construction systems: walls, ceilings – flooring, roof claddings, foundations, lintels
- ❑ adequate construction system for ideal interior space utilisation
- ❑ utmost energy efficiency for low-energy and passive buildings, excellent Blower Door Test results
- ❑ K-KONTROL® is a self-supporting, thermally insulated construction panel (SIP) that can be installed in any position within 360°!
- ❑ precise factory production: standard or on customer's order
- ❑ K-KONTROL® panels: thickness from 120 - 330 mm, basic dimension width =1,250 mm x 2,500 up to 5,000 mm
- ❑ we supply the entire EU and even the Antarctica (1. Czech polar station, 2006)
- ❑ environmentally friendly
- ❑ ČR/SK certified (since 1995!) and european certification ETA/CE (since 2015)

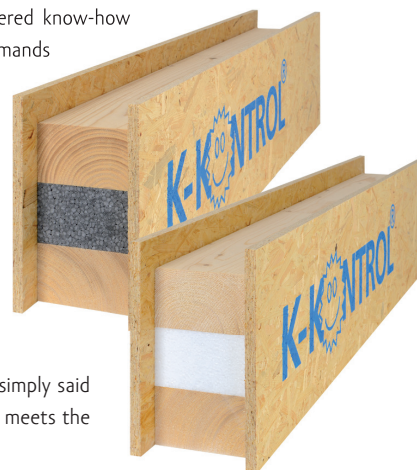


ETA - 14/0311
CE - No 1023-CPR-0685 P



We at CZECH PAN produce the construction systems **K-KONTROL®** and **I-OSB™**. We have gathered know-how in the field of wood construction since 1998. Experiences, quality, variability and high demands on energy-savings requirements are essential as well as more than 20 years of testing in order to be **certified in the Czech Republic and Slovakia** (since 1995!) and to obtain the European **ETA/CE certification** (since 2015). This is a necessary guarantee for our clients!

Our construction systems can be used as diffusion-closed (**K-KONTROL®**) or diffusion-open (**I-OSB™**). We at CZECH PAN offer you simple solutions for constructions of walls, ceilings and roofs for houses, flats, commercial buildings, schools, retirement homes, leisure centres, hotels & houseboats or industrial or sports halls in almost every shape and size. The use of these constructions constitutes an ideal solution for new builds, additions, superstructures and refurbishments. **K-KONTROL®** is ideal for the use in seismic areas and thanks to its firmness and low weight also for buildings with a restricted loading capacity of the footing base (bottom) beams. **K-KONTROL®**: simply said „**all in one**“, i.e. the combination of the **unique** static features with the integrated thermal insulation meets the requirements for passive buildings!



K-KONTROL® CONSTRUCTION SYSTEM – STANDARD

The K-KONTROL® construction system is a universal system for the construction of walls, ceilings and roofs of any type of building. This construction system can be defined as a so called SIP (structural insulated panel). The basic construction element of a SIP is a self-supporting sandwich panel. The panel consists of two OSB boards and an insulation core made of stabilized self-extinguishing EPS polystyrene without HBCD.

NEW K-KONTROL®neo CONSTRUCTION PANEL

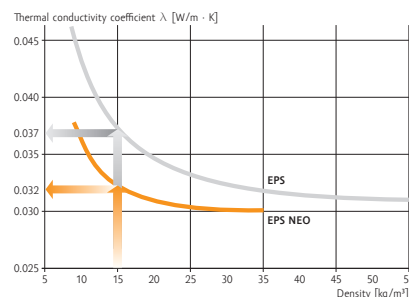
The new K-KONTROL®neo panel unites all the advantages of the SIP construction system with the excellent insulation properties of the EPS 70 neo material without HBCD. By using this new generation of insulation, you can considerably reduce your building's energy consumption and thus simultaneously additional charges caused by increasing energy costs – for the same investment costs and as well to be environmentally friendly.

Physical properties of the K-KONTROL® / neo panel

K-KONTROL® PANEL	T		120	170	210	230	270	330						
Quantity		Unit	Value											
OSB cover thickness	T _O	mm	2 x 15											
EPS core thickness	T _E	mm	90	90	140	140	180	180	200	200	240	240	300	300
Mass	m	kg/m ²	22,0	22,0	22,9	22,9	23,6	23,6	24,0	24,0	24,7	24,7	25,8	25,8
Thermal resistance	R	m ² .K/W	2,486	3,017	3,736	4,611	4,736	5,861	5,236	6,486	6,236	7,736	7,736	9,611
Thermal conductance	U	W/m ² .K	0,377	0,305	0,256	0,205	0,204	0,163	0,185	0,148	0,156	0,125	0,126	0,101
Diffusion resistance	R _d	x 10 ⁻⁹ m/s	76,81	69,92	90,09	79,67	100,71	87,32	106,02	91,15	116,65	98,80	132,59	110,27

Physical properties of basic components of the K-KONTROL® standard + neo

Quantity	Unit	OSB cover	PU adhesive	EPS core	EPS neo	
Density	ρ	kg/m ³	680	1200	20	20
Specific thermal capacity	c	J/kg.K	800	600	1270	1270
Thermal conductivity coefficient	λ	W/m.K	0,130	0,200	0,040	0,032
Diffusion resistance factor	μ	-	250	2460	50	50



We also produce:



Implementing a new technology, we at CZECH PAN have been producing wooden glued I-OSB™ beams with a length up to 13.0 m and a height from 160 to 550 mm adequate for wall, ceiling and roof constructions, since the 1st of October 2011. More on www.i-osb.cz.

