

# FINAL REPORT

No.: 313500448/2013

Applicant: **EKOPANELY CZ s.r.o.**

Applicant: **Jedousov  
535 01 Přelouč  
Česká republika**

DIČ: **CZ25 91 84 60**

Products: **EKOPANEL VP 01**

Producer: **EKOPANELY CZ s.r.o.**

Certification carried out by **Ing. Petr Ptáček, Ph.D.**

Date of issue: **3.5.2013**

*RNDr. Radomír Čevelík  
General Director*



## **Introduction**

Certification of the product was carried out on the basis of an application form No. 313500448 EKOPANELY CZ s.r.o., Jedousov, Přelouč 535 01, Czech Republic, on 23 October 2012.

The aim of this assessment is to demonstrate the safety requirements of European and Czech standards in the production of pressed straw boards to facilitate access to this product on the market of the Czech Republic and the EU.

### **1. Specification of the product**

The product is classified in accordance with EN 312 as particle board without coating for permanent installation in building for non-load bearing purposes in use class 1 according to EN 335-3 (dry-condition).

### **2. Compliance of properties certified product with specified regulations**

#### **2.1 Specified regulation**

Assessment of the product was carried out according to standard ČSN EN 13501-1+A1 – par. 8, 11, ČSN EN 13501-2+A1 – par. 5, 6,7, public notice 6/2003 Coll., ČSN EN 13986 – par. 4.4, 5.7, 5.8

#### **2.2 Indicators of essential characteristics, test methods**

Specified in the tab.1.

#### **2.3 Place of testing**

Samples were delivered to the ČIA accredited testing laboratories No. 1031, 1007.7, 1321, 1206.3, 1206.3, 1026.2, 1026.1, 1018.5, 1396, SNAS accredited testing laboratory 041/S-159 and the testing laboratory ITB Warszawa.

#### **2.4 Test results**

Test results are mentioned in the table 1.



Table 1.

No.	Assessed feature	Requirement	Result	Evaluation
1.	resistance soft body impact	EN 596 impact body – 50 kg impact energy 30-210 J	180 J without failure 210 J rupture	compliant
2.	reaction for fire	EN 13 501-1+A1 par. 8, 11	E thickness 58+2 mm	compliant
3.	fire resistance	EN 13501-2+A1 EN 1364-1 <i>composition:</i> - EKOPANEL VP 01 tl. 59 mm	EI 30 (o↔i) DP3	compliant
		EN 1365-1 <i>composition:</i> - beam 50/140 mm – S10 C 24, a' = 725 mm - EKOPANEL VP 01 tl. 59 mm - joint cover with wooden plank 80x40 mm	RE 30 REW 30 REI 45 DP3 from side Ekopanel VP1	
4.	fire resistance of ceiling	EN 13501-2+A1 EN 1365-2 <i>composition:</i> - wooden plank – 25 mm - beam 140/180 mm – S10, a' = 1060 mm - EKOPANEL VP 01 th. 59 mm - penetration by Sokrat 1:3 - reinforcing grid in cement binder	EI 45 DP3	compliant
5.	index spread of flame in surface	ČSN 730802 čl. 7.14.2	$i_s = 34 \text{ mm} \cdot \text{min}^{-1}$	compliant
6.	coefficient of thermal conductivity	EN 12664, EN 10456	$\lambda_D = 0,099 \text{ W}/(\text{m} \cdot \text{K})$	compliant
7.	thermal resistance	thickness (0,058 m) / $\lambda$	$0,586 \text{ m}^2/\text{kW}$	compliant
8.	transmission of water vapor	EN ISO 12572 B (23°C, 0/85% relative humidity)	$\mu = 9,7$	compliant
9.	coefficient diffusion conductivity	EN ISO 12572 B (23°C, 0/85% relative humidity)	$\delta = 0,074 \text{ mg}/(\text{m} \cdot \text{h} \cdot \text{Pa})$	compliant
10.	formaldehyde content	EN 13986 – Table B.1 - E1 $\leq 3,5 \text{ mg}/\text{m}^2\text{h}$	$2,64 \text{ mg}/\text{m}^2\text{h}$	compliant
11.	healthy irrelevancy	SOP 1/12 SOP 2/12 evaluation by SZÚ	Suitable for using in interior of building public notice 6/2003 Sb.	compliant



## 2.6 Comparison of properties of certified product with the technical requirements

Certified product complies with the requirements of the standards:

ČSN EN 13501-1+A1 – par. 8, 11, ČSN EN 13501-2+A1 – par. 5, 6,7, public notice 6/2003 Coll., ČSN EN 13986 – par. 4.4, 5.7, 5.8

## **3. Assessment of the quality management system in production**

Assessment of the factory production control was carried out by qualified person of certification body of ITC in production company EKOPANELY CZ s.r.o., Jedousov, Přelouč 535 01, Czech Republic, on 3.5.2013. The production control system is in function, no differences have been identified.

The factory production control of EKOPANELY CZ s.r.o., is subject to periodic surveillance performed by ITC Certification Body for products.

## **4. Conclusion**

Certified product complies with requirements of the standards:

- ČSN EN 13501-1+A1 – par. 8, 11 – E (thickness 58+2 mm)
- ČSN EN 13501-2 +A1– par. 5, 6,7 – EI 30 (o↔i), RE 30, REW 30, REI 45 DP3, EI 45 DP3 (classification depend on construction)
- public notice 6/2003 Coll.
- ČSN EN 13986 – par. 4.4, 5.7, 5.8 – E1

From the data presented in Table 1 it concludes that certified products meet the stated parameters determined with standards that apply to them.

ITC certification body on the basis of initial type testing and audit results of factory production control states that the products are in conformity with the provisions of normative regulations referred to in section 2.1, and the manufacturer and production control system ensures continuous compliance with the properties of the product specifications.

ITC Certification Body decides to issue product certificate confirming compliance with the standards requirements.

The product complies with requirements for the issue of certificate by the ITC Certification Body.



## 5. List of documents used to preparing the final protocol

- Test protocol No. 406/08, Determination of formaldehyde content, issued by ČIA accredited test laboratory No. 1031
- Test protocol No.: 13463, test of fire characteristics, issued by ČIA accredited test laboratory No. 1007.7
- Test protocol FIRES FR 138/04 CPS, Nonload bearing wall EKOPANEL, type VP 01 without surface treatment, EN 1364-1, issued by ČIA accredited test laboratory No.. 1321
- Test protocol FIRES FR 090-12-AUNS, load bearing wall EKOPANEL type VP 01 without surface treatment, EN 1365-1, issued by SNAS accredited test laboratory No.. 041/S-159
- Classification of fire resistance FIRES-CR-148-12-AUPS wooden load bearing wall with Ekopanel VP01, issued by Fires
- Classification protocol No. PK-07-022, Ekopanel VP 01 – reaction for fire EN 13501-1, issued by CSI, a.s.
- Expertise report – healthy irrelevancy of Ekopanel VP01, issued by SZÚ
- Test protocol No. 12/06/062, Determination of organic volatile content (VOC) by SOP 1/12, issued by ČIA accredited test laboratory No.. 1206.3
- Test protocol No. 12/06/062,063,064, Determination of formaldehyde content (H2CO) by SOP 1/12, issued by ČIA accredited test laboratory No.. 1206.3
- Test protocol No. 9033-2/2 determination of index spread of flame Ekopanel VP 01, issued by ČIA accredited test laboratory No.. 1026.2
- Test protocol No. Pr-04-1.02.031, horizontal load bearing construction, Wooden load bearing construction with ceiling from EKOPANEL VP 01, ČSN EN 1365-2, issued by ČIA accredited test laboratory No.. 1026.1
- Test protocol No. 010-016498, EKOPANEL VP 01, soft body impact test EN 596, issued by ČIA accredited test laboratory No.. 1018.5
- Fire classification of resistance outside wall from EKOPANEL VP 01 No. 080-010469, application of test results, TZUS, s.p.
- Fire classification attest No. PKO-05-038/AO 204, outside wall non load bearing from EKOPANEL type VP 01, No. 080-010470, TZUS, s.p.
- Test protocol No. 364/05/ZB, Determination of coefficient of thermal conductivity in steady state, ČSN 727012, issued by ČIA accredited test laboratory No. 1396
- Test protocol No. 365/05/ZB, Determination of transmission of water vapor by surface treatment building construction, ČSN 732580, issued by ČIA accredited test laboratory No.. 1396
- Test and technical evaluation of EKOPANEL type VP 01 č. NL-3607/A/05 (Badania i ocena techniczna płyt słomiano-kartonowych EKOPOLYTA typ VP 01, NL 3607/A/05), ITB Warszawa
- Test protocol No. NL-3607/A/LL-381/M/05, PN-B-79405, EN 310, EN 317, EN 318, EN 319, EN 324-1, EN 324-2, EN 520, ITB Warszawa, Laboratorium Lekkich Przegród i Przeszklen
- Test protocol 2173, Determination of thermal conductivity and diffusion properties board Ekopanel VP 01, issued by ČIA accredited test laboratory 1007.4