



Engineering Test Institute, Public Enterprise, Testing Laboratory
Hudcova 424/56b, Medlánky, 621 00 Brno, Czech Republic

CERTIFICATE

O-B-01797-21

Customer: Pavel Štěpán
Kučerov 64,
682 01 Kučerov
Czech Republic

Company ID No.: 15243133

Manufacturing plant: Pavel Štěpán
Cukrovarská 496/51d
682 01 Vyškov
Czech Republic

Product: Wood briquettes
(wood briquettes made of sawdust and shavings of light colour and visible shavings; cylinder shape /diameter 8.5 cm, length 28.5 cm/)

Type designation: A1 according to EN ISO 17225-3

The Engineering Test Institute, Testing Laboratory hereby confirms that analysis of the samples of the fuel concerned has been performed with the following results:

Standard applied	Analytical indicator	Symbol	Unit	Actual condition	Anhydrous condition
				Value	Value
EN ISO18125	Gross calorific value	q_{gr}	[MJ.kg ⁻¹]	18.09	19.97
EN ISO18125	Net calorific value	q_{net}	[MJ.kg ⁻¹]	16.57	18.80
EN ISO 18134-2	Total moisture as received	M_{gr}	[% mass]	9.42	0.00
EN ISO 18122	Ash	A	[% mass]	0.55	0.61
ISO 29541	Carbon	W_C	[% mass]	45.92	50.69
ISO 29541	Hydrogen	W_H	[% mass]	5.89	5.34
ISO 29541	Nitrogen	W_N	[% mass]	0.06	0.07
EN ISO 16994	Chlorine	W_{Cl}	[% mass]	0.010	0.011
EN ISO 16994	Sulphur	W_S	[% mass]	0.022	0.024
EN ISO 17294-2	Arsenic	W_{As}	[mg.kg ⁻¹]	< 0.54	< 0.60
EN ISO 17294-2	Cadmium	W_{Cd}	[mg.kg ⁻¹]	0.25	0.28
EN ISO 11885	Chromium	W_{Cr}	[mg.kg ⁻¹]	< 3.74	< 4.15
EN ISO 11885	Copper	W_{Cu}	[mg.kg ⁻¹]	0.52	0.58
EN ISO 11885	Nickel	W_{Ni}	[mg.kg ⁻¹]	2.72	3.03
EN ISO 11885	Plumbum	W_{Pb}	[mg.kg ⁻¹]	< 6.23	< 6.92
EN ISO 11885	Zinc	W_{Zn}	[mg.kg ⁻¹]	10.3	11.4
EN ISO 16968	Hydrargyrum	W_{Hg}	[mg.kg ⁻¹]	0.002	0.002
EN ISO 18847	Particle density	DE	[g.cm ⁻³]	1.20	

The Certificate was issued on the basis of Test Report 39-15973/T dated 2021-11-02 issued by the Engineering Test Institute, Public Enterprise.

The comparison with the limit values according to EN ISO 17225-3 is shown on Page 2.

Brno, 2021-11-02



Milan Holomek
Head of Heat and Environment
Friendly Equipment Test Station

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The comparison with the limit values according to EN ISO 17225-3:

Property	Symbol	Unit	Measured values	Symbol	EN ISO 17225-3
				Specification A1	
Origin and source					1.2.1. 1.1.
Diameter	D	[mm]	85		
Length	L ₁	[mm]	285		
Shape			1		
Moisture content	M _{ar}	[% mass]	9.42	M12	≤ 12
Net calorific value as received		[MJ.kg ⁻¹]	16.57	Q15.5	≥ 15.5
Ash ^{*)}	A	[% mass]	0.61	A1.0	≤ 1.0
Nitrogen ^{*)}	W _N	[% mass]	0.07	N0.3	≤ 0.3
Total sulphur ^{*)}	W _S	[% mass]	0.024	S0.04	≤ 0.04
Total chlorine ^{*)}	W _{Cl}	[% mass]	0.011	Cl0.02	≤ 0.02
Arsenic ^{*)}	W _{As}	[mg.kg ⁻¹]	< 0.60		≤ 1
Cadmium ^{*)}	W _{Cd}	[mg.kg ⁻¹]	0.28		≤ 0.5
Chromium ^{*)}	W _{Cr}	[mg.kg ⁻¹]	< 4.15		≤ 10
Copper ^{*)}	W _{Cu}	[mg.kg ⁻¹]	0.58		≤ 10
Nickel ^{*)}	W _{Ni}	[mg.kg ⁻¹]	3.03		≤ 10
Plumbum ^{*)}	W _{Pb}	[mg.kg ⁻¹]	< 6.92		≤ 10
Zinc ^{*)}	W _{Zn}	[mg.kg ⁻¹]	11.4		≤ 100
Mercury ^{*)}	W _{Hg}	[mg.kg ⁻¹]	0.002		≤ 0.1
Particle density	DE	[g.cm ⁻³]	1.2	DE1.0	≥ 1.0

*) In anhydrous condition

