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29.06.2021



**EN ISO/IEC 17025
T-261**

TEST REPORT No. 2080-14.05-21

1. Information about customer

Customer: 4 Plus, SIA

Address: Abula 6B, Valmiera, LV-4201, LATVIA

Phone: +371 29445790

2. Information about samples from customer:

Object: Merķeļa 20, Alūksne

Date of sampling: 11.05.2021

Sample No.	Place of sampling	Kind of sample
1	Merķeļa 20, Alūksne	Woodchips

3. Description of samples

Sample No.	Container	Amount of sample
1	plastic bag	1kg

Received in the laboratory: 14.05.2021, 16:25

TEST RESULTS

Start/end date of testing (dd/mm/yyyy): 14.05.2021/29.06.2021

Parameter	Unit of measurement	Result	Uncertainty ^x	Test method
Sample 1 - Merķeļa 20, Alūksne				
Net calorific value of moist sample	Kwh/kg	4.902	0.098	LVS EN ISO 18125:2017
Net calorific value of moist sample	kcal/kg	4215	84	LVS EN ISO 18125:2017
Gross calorific value of dry sample	kcal/kg	4761	95	LVS EN ISO 18125:2017
Potassium, K	mg/kg	1872	150	LVS ISO 11466:1995 LVS ISO 9964-3:2000
Sodium, Na	mg/kg	203	20	LVS ISO 11466:1995 LVS ISO 9964-3:2000
Ash content (550°C)	%	0.417	0.042	LVS EN ISO 18122:2016 [◇]
Bulk density of moist sample	kg/m ³	95	-	LVS EN ISO 17828:2016 [□]
Total moisture determined at (105±2)°C	%	4.9	0.3	LVS EN ISO 18134-2:2017 [◇]
Total chlorine	%	0.039	-	LVS EN ISO 16994:2016 [◇]
Total sulphur	%	0.022	-	LVS EN ISO 16994:2016 [◇]
Total nitrogen (N)	%	0.032	0.002	LVS EN 13654-1:2003 /NAC:2004

Parameter	Unit of measurement	Result	Uncertainty ^x	Test method
Zinc, Zn	mg/kg	6.97	0.70	LVS ISO 11047:1998 A
Copper, Cu	mg/kg	<1.9	-	LVS ISO 11047:1998 A
Lead, Pb	mg/kg	<8.2	-	LVS ISO 11047:1998 A
Chromium, Cr	mg/kg	<2	-	LVS ISO 11047:1998 A
Cadmium, Cd	mg/kg	0.085	0.014	LVS ISO 11047:1998 B
Nickel, Ni	mg/kg	<2.7	-	LVS ISO 11047:1998 A
Arsenic, As	mg/kg	<0.2	-	LVS ISO 11466:1995 LVS EN ISO 15586:2003
Mercury, Hg	mg/kg	<0.2	-	LVS 346:2005
Aluminium, Al	mg/kg	36.2	6.2	LVS ISO 11466:1995 LVS EN ISO 15586:2003
Vanadium, V	mg/kg	<0.5	-	LVS ISO 11466:1995 LVS EN ISO 15586:2003
Magnesium, Mg	mg/kg	131	10	LVS ISO 11466:1995 LVS EN ISO 7980:2000
Calcium, Ca	mg/kg	105	9	LVS ISO 11466:1995 LVS EN ISO 7980:2000
Iron, Fe	mg/kg	1.36	0.14	LVS ISO 11466:1995 Stand.Meth.3111B
Cobalt, Co	mg/kg	<2.2	-	LVS ISO 11047:1998 A
Manganese, Mn	mg/kg	7.59	0.83	LVS ISO 11047:1998 A
Antimony, Sb	mg/kg	<0.2	-	LVS ISO 11466:1995 LVS EN ISO 15586:2003

Gross calorific value of dry sample 19933 kJ/kg

Net calorific value of moist sample 17647 kJ/kg

^xgiven uncertainty of the measurement is the expanded uncertainty - calculated, using covering coefficient 2, which ensures 95% level of confidence.

Results under the method detection limit (MDL) are given with the symbol “<”.

The number after the symbol “<” is equal to the MDL.

[‡]test method is not in the scope of laboratory accreditation.

[◊]test method is in the flexible scope of laboratory accreditation.

Test results relate only to the tested samples!

Sampling was carried out by the customer.

The laboratory is not liable for the data, given by the customer.

Laboratory supervisor deputy:

Natalija Gorbunova

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