Analytical Report No. LV.20.16.0023.1

Cargo grade	**Wood Pellets**
Sample Description / No.	1 x 3.0 kg plastic bags / No. 121-PC
Sample labelled	Composite sample of wood pellets at "LDG Forest Group" company, Denmark
Sample taken *	Unknown *
Sample received by laboratory	on 18th of January, 2016
Sealed	Unsealed
Date of Testing	on 18th - 20th of January, 2016
Client	LDG Forest Group

TESTS, UNITS	METHODS	SPECIFICATION	RESULTS
Total Moisture, % mass	LVS EN 14774-1	-	7.25
Analitical Moisture, % mass	LVS EN 14774-3	-	7.00
Ash, % mass	LVS EN 14775	-	0.33
Volatile Matter, % mass	LVS EN 15148	-	79.55
Total Sulphur, % mass	SS 187177	-	0.01
Gross Calorific Value, kcal/kg	LVS EN 14918	-	4,518
Hydrogen content, *(excludes H in moisture)* % mass	LVS EN 15104	-	4.96
Nitrogen content, % mass (ad)	LVS EN 15104	-	0.07
Oxygen by diff., *(excludes O in moisture)* % mass	Calculated	-	40.67
Carbon content, % mass (ad)	LVS EN 15104	-	46.96
Ash Fusion (Oxidizing Atmosphere),	SS-ISO 540		
Deformation Temperature (DT), °C		-	1,400
Sphere Temperature (ST), °C		-	1,410
Hemisphere Temperature (HT), °C		-	1,420
Flow Temperature (FT), °C		-	1,430

The below table is received by recalculation of the analitical data according to method LVS EN 15296:

Tests, Units	As-Analysed (ad)	Dry(d)	Dry Ash-free(daf)	As-Received (ar)
Moisture, % mass	7.00	-	—	7.25
Ash, % mass	0.33	0.35	—	0.33
VM, % mass	79.55	85.54	85.84	79.34
Sulfur, % mass	0.01	0.01	0.01	0.01
Q (gross), kcal/kg	4,518	4,858	4,875	4,506
Q (gross), kJ/kg	18,916	20,340	20,412	18,865
Q (gross), MWh/ton	5.25	5.65	5.67	5.24
Q (net), kcal/kg *at Constant Volume*	—	4,596	—	4,223
Q (net), kJ/kg *at Constant Volume*	—	19,241	—	17,679
Q (net), MWh/ton *at Constant Volume*	—	5.34	—	4.91
Q (net), kcal/kg *at Constant Pressure*	—	4,579	—	4,205
Q (net), kJ/kg *at Constant Pressure*	—	19,173	—	17,606
Q (net), MWh/ton *at Constant Pressure*	—	5.33	—	4.89
Nitrogen, % mass	0.07	0.08	0.08	0.07
Oxygen, *(excludes O in moisture)* % mass	40.67	43.73	43.89	40.56
Hydrogen, *(excludes H in moisture)* % mass	4.96	5.33	5.35	4.95
Total Carbon, % mass	46.96	50.49	50.67	46.83

The results shown in this test report specifically refer to the sample(s) tested as received unless otherwise stated.
All tests have been performed using the latest revision of the methods indicated, unless specifically marked otherwise on the report.
Precision parameters apply in the determination of the above results. The laboratory is accredited by Latvian National Accreditation Bureau (LATAK) according to LVS EN ISO/ IEC 17025.
LATAK registration No.: LATAK-T-320.
Accreditation certificate is valid until 25th. March 2020.
* The sample was taken by the *"LDG Forest Group"* company.
- The sample(s), to which the findings recorded herein (the "FINDINGS") relate, was (were) drawn and / or provided by the Client or a third party acting on Clients directions.
- The Findings constitute no warranty of the samples representativity of all the goods and strictly relate to the samples.
- The Company accepts no liability with regard to the origin or source from which the samples is/are said to be extracted.

For and on behalf of
SGS LATVIJA Ltd.
Riga, 20th of January, 2016

This document was issued electronically and requires no hand written signature to be valid.

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