

W 10
100%
Waarheid.

Analytical Report

To whom it may concern

Reportnr. : 856411 version 1	Disponent Number : 1021612
Product recognized as : Hout/Wood/Bois/Holz/Madera	Sampling Date : 12-Jul-2018
Product Specification : Biomassa - Houtpellets	Sample size (kg) : 302,3
Reference : VESTANHAV	Sealed / Seal Code : No /
AWB / BarCode :	Sample Arrival Date : 13-Jul-2018 06:59
Packing : Plastic	ReportDate Version : 21-Jul-2018 08:51
Sample Type : BIS	
Ex : Vestanhav	TonnageEx Lot (mt) : 6544,655
Buyer : Zijderlaan Waspik B.V. Op- en Overslagb	
Disp. SampleType : Composite Sample	

Composition Determination

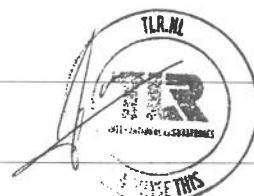
Parameter	Result (as received)	Result (on dry)	Result (as det)	Result (dry ash free)		
Total Moisture	5,34			%		Q R
Moisture Airdry			7,67	%		Q R
Ash	0,27	0,28	0,26	%		Q R
Volatile matter incl. moisture.			85,92	%		Q R
Volatile matter	80,22	84,75	78,25	84,99 %		
Fixed Carbon	14,17	14,97		%		
Gross Calorific Value	4619,4	4880,2	4505,8	4894,0 kcal/kg		Q R
	19,34	20,43	18,86	20,49 GJ/mt		
Nett Calorific Value (cV)	8314,9	8784,4	8110,5	8809,2 B.T.U.'s/Lb		
	4309,1			kcal/kg		Q
	18,04			GJ/mt		
	7756,4			B.T.U.'s/Lb		
	5,0			kWh/kg		
Nett Calorific Value (cP)	17,97			GJ/mt		Q
Emissionfactor CO2 (cV)	99,00			t CO2/TJ		
Emissionfactor CO2 (cP)	99,41			t CO2/TJ		
Hydrogen	5,71	6,03	6,42	6,05 %		Q R
Carbon	48,71	51,46	47,51	51,60 %		Q R
Nitrogen.	< 0,05	< 0,05	< 0,05	< 0,05 %		Q R
S. (Sulfer)	< 0,01	< 0,01	< 0,01	< 0,01 %		Q R
Oxygen (by difference)				42,35 %		

Composition Determination

Common

Parameter	Result (as received)	Result (on dry)	Result (as det)		
AFT. (oxid) DT			1510	gr. C	R
Diameter pellets (n=25)			6,1	mm	Q R
Length of pellets			9,9	mm	Q R
Sieve < 3,15 mm.			7,4	%	R

Demanded 12-Jul-2018 by PBL
Analyses according to annex
Drs. ing. H. Janssens Director TLR International Laboratories



Analytical Report

Reportnr.	: 835415 version 2	Disponent Number	:
Product recognized as	: Hout/Wood/Bois/Holz/Madera	Sampling Date	: 26-Apr-2018
Product Specification	: Emplus A1	Sample size (kg)	: 2,181
Reference	:	Sealed / Seal Code	: No /
AWB / BarCode	:	Sample Arrival Date	: 26-Apr-2018 13:35
Packing	: Plastic, ambient	ReportDate Version	: 04-May-2018 17:00
Sample Type	: BIS		

ANNEX

Method Descriptions

Composition Determination

Common

Method Description

Determination of ash; gravimetric method

Coal: NEN-ISO 1171 Biomass : EN-14775; Secondary bio fuels : NEN-EN-15403

Determination of carbon (C), nitrogen (N), hydrogen (H) with the element analyser

Coal : NEN-ISO29541, Biomass : NEN-EN 15104, Secondary bio fuels NEN-EN 15407

Determination of fusibility of ash; temperature-tube method

Determination of gross calorific value by bombcaloric method and calculation of net calorific value

Coal: NEN-ISO 1928, Solid Biofuels NEN-EN14918; secondary biofuels NEN-EN15400

Determination of moisture in the analyse sample; gravimetric method

Coal: NEN-ISO 11722; Biomass: NEN-EN14774-3; Secondary bio fuels : NEN-EN15414-3

Determination of Sulphur (S); NEN-EN-ISO 16994

Determination of total moisture in the sample; gravimetric method

Coal: ISO-589 biomass: NEN-EN14774-1; Secondary bio fuels : NEN-EN15414-1

Determination of volatile matter content; gravimetric method

Coal: NEN-ISO 562; Biomass: NEN-EN15148; secondary biofuels: NEN-EN 15402

Method Code

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NPR CEN/TS 15370-1
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Demanded 26-Apr-2018 by Zijderlaan Handel Maatschappij BV (ZHM)
Analyses according to annex
Drs. ing. H. Janssens Director TLR International Laboratories



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