Bankwerkerstraat 16 3077 MB Rotterdam P.O. Box 91244 3007 ME Rotterdam The Netherlands T. +31 (0)10-28 23 292 F. +31 (0)10-28 23 273 e-mail: info@tlr.nl website: www.tlr-international.com



# **Analytical Report**

**Control Union Certifications Germany GmbH** 

Dorotheastrasse 30 D-10318 Berlin Germany

Reportnr. : 1271119 version 1 Sample Arrival Date 05-Apr-2021 17:29 ReportDate Version 14-Apr-2021 12:53

: Plastic, ambient

Sampling Date

\*: 05-Mar-2021

Samplesize (kg) :6,93

Sample information \*

Packing

Disponent Number : PRJ870263 Sealed / Seal Code :Yes/

: Belozersky lespromkhoz/control union Seller Unloader

Product specification : Wood pellers 6 mm AWB / BarCode : GE527814625WW

\* Information supplied by customer (TLR takes no responsibility for this information).

Parameter	Result (as received)	Result (on dry)	Result (as det)	Result (dry ash free	)		
Total Moisture	7,78				%	XX	0
Moisture Airdry			5,85		%	Q	/ R
Ash	0,26	0,28	0,26		%	Q	R
/olatile matter incl. moisture.		*	86,07		%	Q	R
/olatile matter Fixed Carbon	78,58 13,39	85,21 14,51	80,23	85,45	% %		
Gross Calorific Value	4513,5	4894,3	4608,1	4907,9	kcal/kg	Q	R
	18,90 8124,3	20,49 8809,7	19,29 8294,7	20,55 8834,2	GJ/mt B.T.U.'s/Lb		
Nett Calorific Value (cV)	4191,1 17,55 7544,0				kcal/kg GJ/mt B.T.U.'s/Lb	Q	<b>Y</b>
Ni /	4,9			MI //	kWh/kg		R
Nett Calorific Value (cP)	17,47		7		GJ/mt	Q	
Emissionfactor CO2 (cV) Emissionfactor CO2 (cP)	98,62 99,05			XA -/	t CO2/TJ t CO2/TJ		
Hydrogen	5,68	6,16	6,45	6,17	%	Q	R
Carbon	47,19	51,17	48,18	51,31	%	Q	R
Nitrogen.	< 0,05	< 0,05	< 0,05	< 0,05	%	Q	R
S. (Sulfer)	< 0,010	< 0,010	< 0,010	< 0,010	) %	Q	R
Oxygen (by difference)	2.0	X	10	42,470	) %		

Preparation Common

Parameter

Result Result Result (as det) (as received) (on dry)

B-wood preparation according NEN EN 14780 and NEN EN Preparation sample

15443

**Composition Determination** 

Common

Parameter Result Result Result (as received) (on dry) (as det)

Demanded 05-Apr-2021 by Control Union Certifications Germany GmbH Analyses according to annex

Drs. ing. H. Janssens Director TLR International Laboratories





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# **Analytical Report**

Reportnr. : 1271119 v Sample Arrival Date : 05-Apr-20 ReportDate Version : 14-Apr-20 Packing : Plastic, ar	)21 17:29 ) <b>21 12:53</b>		Sampling Date Samplesize (kg)	*: 05-Mar-2021 : 6,93		
AFT. (oxid) DT			1500	gr. C		R
Diameter pellets (n=25)	6,2		1300	mm	Q	R
Length of pellets	15,1			mm	Q	R
Sieve < 3,15 mm.	0,1			%	· ·	R
Metal and other elements				70		
Parameter	Result (as received)	Result (on dry)	Result (as det)	.M. 7	<b>*</b>	
Cd (Cadmium)	0,057	0,061	0,058	mg/kg	Q	R
Pb (Lead)	0,05	0,05	0,05	mg/kg	Q	R
As (Arsenic)	< 0,040	< 0,040	< 0,040	mg/kg	Q	R
Hg (Mercury)	< 0,020	< 0,020	< 0,020	mg/kg	Q	R
Ni (Nickel)	< 3,0	< 3,0	< 3,0	mg/kg	Q	R
CI (Chlorine)	< 0,005	< 0,005	< 0,005	%	Q	R
Cr.(Chromium)	< 5,0	< 5,0	< 5,0	mg/kg		R
Cu.(Copper)	< 5,0	< 5,0	< 5,0	mg/kg	X The state of	R/
Zn. (Zinc)	9,8	10,6	10,0	mg/kg	50/1	R
Other Analysis	3/	/\.	1	· /:X /://		
Common	\			19: 1/2		
Parameter	Result (as received)	Result (on dry)	Result (as det)		177	
Mechanical Durability	99,2	: //>//		%	Q	R
Bulk density	678	10/1.		kg/m3	Q	R

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# **Analytical Report**

Reportnr. : 1271119 version 1

05-Apr-2021 17:29 Sample Arrival Date ReportDate Version 14-Apr-2021 12:53 Packing

Plastic, ambient

Sampling Date Samplesize (kg) \*: 05-Mar-2021

:6,93

### **ANNEX**

#### **Method Descriptions**

### **Composition Determination**

### Common

### **Method Description**

Determination of ash; gravimetric method

Coal: NEN-ISO 1171 Biomass: NEN-EN15403; Secondary bio fuels: NEN-EN- ISO 18122

Determination of carbon (C), nitrogen (N), hydrogen (H) with the element analyser Coal: NEN-ISO29541, Biomass: NEN-EN-ISO 16948: Secondary bio fuels NEN-EN

Determination of fusibility of ash; acc EN-plus, ash formed (815°C), cube form

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

Coal: NEN-ISO 1928, Solid Biofuels NEN-EN-ISO18125; secundairy biofuels NEN-EN15400

Determination of moisture in the analyse sample; gravimetric method Coal: NEN-ISO 11722; Biomass: NEN-EN-ISO 18134-3; Secondary bio fuels: NEN-EN15414-3

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

Determination of the amount of material passing through a sieve with 3,15 mm diameter round hole ISO 18846:2016

Determination of the length and diameter of the woodpellets; Own method

Determination of total moisture in the sample; gravimetric method

Coal:NEN-ISO-589 MB biomasss: NEN-EN-ISO 18134-1; Secondary bio fuels: NPR-

Determination of volatile matter content; gravimetric method

Coal: NEN-ISO 562; Biomass: NEN-EN-ISO 18123; secundairy biofuels: NEN-EN 15402

### Metal and other elements

## **Method Description**

Determination of chloride (CI); Ion chromatography

Biomass: according NEN-EN-ISO 16994 Coal: Own method

Determination of mercury (Hg); CV-AAS

Determination of minor elements. As, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, V and Zn

## Other Analysis

### Common

**Method Description** 

### **Method Code**

Own method

Acc. NEN-EN-ISO17829

**Method Code** 

Acc. NEN-EN-ISO16968 eq.nen-en-iso16968

**Method Code** 

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Findings are based on the sample as submitted. TLR does not assume responsibility for sampling, selection, representativity and identifications such as codes, markings or product names. Details regarding methodology and measuring uncertainty will be provided upon request. Contact info@tfr.nl.

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Packing : Plastic, ambient Sampling Date Samplesize (kg) \*: 05-Mar-2021

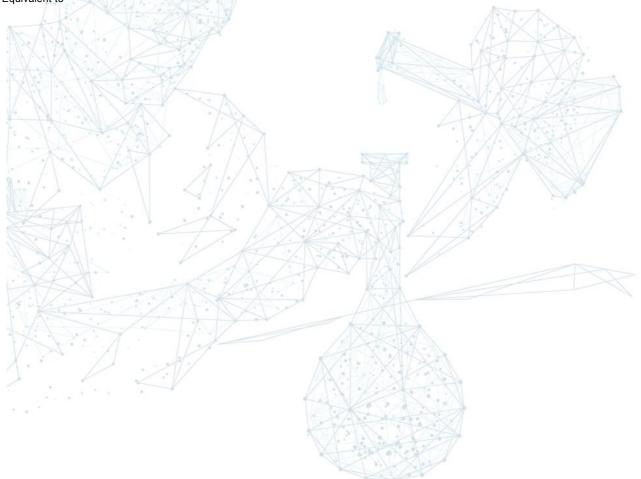
:6,93

Determination of bulk density (poured) bulk density Determination of mechanical durability of pellets

Acc.NEN-EN-ISO 17828 NEN-EN-ISO 17831-1

Abbreviations:

acc: in accordance with eq: Equivalent to



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