

Confirmation of Wood pellet quality



Koala Energy LTDA
 Rua Capitaó Osmar Romao da Silva 303
 Centro
 BR-89.295-000 Rio Negrinho
 Brazil

This document confirms, that the Woodpellet quality of the sample taken at the inspection of the production site in Rio Negrinho, Brazil on 2016-12-06, meet the requirements according to **ENplus** - Quality certification scheme for wood pellets

The analysis of tested fuel parameters were carried out by qualified personnel of **OFI – Technologie & Innovation GmbH**.

Wood Pellets, ENplus A1

		Koala Energy LTDE	ENplus A1 requirements
sample number		420.231-1	-
Fines (packaged pellets)	[%]	0,2	≤ 0,5
Length	[mm]	18,17	3,15 ≤ L ≤ 40
Diameter	[mm]	6,7	6 ± 1
Mechanical durability	[%]	98,8	≥ 98
Bulk density	[kg/m ³]	725	≥ 600
Moisture content	[%]	4,61	≤ 10
Ash content 550°C(db)	[%]	0,23	≤ 0,7
Net calorific value	[kWh/kg]	5,0	≥ 4,6
Additive	[%]	n.a.	≤ 2
Sulphur content (db)	[%]	0,03	≤ 0,04
Chlorine content (db)	[%]	0,006	≤ 0,02
Nitrogen content (db)	[%]	0,13	≤ 0,30
Arsenic (db)	[mg/kg]	< 0,8	≤ 1
Lead (db)	[mg/kg]	< 2	≤ 10
Cadmium (db)	[mg/kg]	< 0,2	≤ 0,5
Chromium (db)	[mg/kg]	< 1	≤ 10
Copper (db)	[mg/kg]	< 1	≤ 10
Zinc (db)	[mg/kg]	8	≤ 100
Mercury (db)	[mg/kg]	< 0,05	≤ 0,1
Nickel (db)	[mg/kg]	< 1	≤ 10
Ash melting behaviour			
Deformation temperature DT	[°C]	1290	≥ 1200
Flow temperature FT	[°C]	> 1500	-

Test results were analyzed by OFI in December 2016 and January 2017.

Date: 15.02.2017

Director in Charge



Bernhard MÖTZ