

For the production of wood pellets produced by

RST-Pellet d.o.o., Delnice, CROATIA

certified according to **ENplus® A1 and A2** with the ID number: **HR023**

we confirm the following test results analysed within the inspection 2019 valid until the inspection in 2020.

Samples 2019096	Standard	unit	Pellets spruce	Pellets beech	Pellets spruce / beech ***	Limit values according ENplus®	
						Class A1	Class A2
mechanical durability	ISO 17831-1	[%]	98,3	98,9	98,9	≥ 98,0	≥ 97,5
bulk density (ar)	ISO 17828	[kg/m³]	650	660	680	750≥BD≥600	750≥BD≥600
moisture content	ISO 18134-2	[%]	6,0	6,2	6,6	≤ 10	≤ 10
ash content 550°C(db)	ISO 18122	[%]	0,5	0,9	0,6	≤ 0,7	≤ 1,2
net calorific value (ar)	ISO 18125	[MJ/kg]	17,4	16,8	17,6	≥ 16,5	≥ 16,5
net calorific value (ar)	ISO 18125	[kWh/kg]	4,8	4,7	4,9	≥ 4,6	≥ 4,6
net calorific value (db)	ISO 18125	[MJ/kg]	18,7	18,1	19,0	-	-
net calorific value (db)	ISO 18125	[kWh/kg]	5,2	5,0	5,3	-	-
gross calorific value (ar)	ISO 18125	[MJ/kg]	19,0	18,3	19,1	-	-
gross calorific value (ar)	ISO 18125	[kWh/kg]	5,3	5,1	5,3	-	-
Sulphur content (db)	ISO 16994	[%]	0,01	0,012	0,008	≤ 0,04	≤ 0,05
Chlorine content (db)	ISO 16994	[%]	< 0,005	< 0,005	0,006	≤ 0,02	≤ 0,02
Nitrogen content (db)	ISO 16948	[%]	0,10	0,14	0,11	≤ 0,30	≤ 0,50
pressing aid / additives	-	[%]	< 1	< 1	< 1	≤ 1,8	≤ 1,8
dimensions							
finer (< 3,15 mm)	ISO 18846	[%]	0,3	0,2	0,2	≤ 0,5* / ≤ 1	≤ 0,5* / ≤ 1
length (3,15 ≤ L ≤ 40 mm)	ISO 17829	[%]	99,7	99,8	99,8	> 98,5* / >98	> 98,5* / >98
length (40 ≤ L ≤ 45 mm)	ISO 17829	[%]	0	0	0	≤ 1	≤ 1
length (> 45 mm)	ISO 17829	[amount]	0	0	0	0	0
diameter	ISO 17829	[mm]	6	6	6	6 or 8 ± 1	6 or 8 ± 1
heavy metals**							
Chromium (db)	ISO 16968	[mg/kg]	< 1	< 1	< 1	≤ 10	≤ 10
Copper (db)	ISO 16968	[mg/kg]	1,0	1,8	2,7	≤ 10	≤ 10
Zinc (db)	ISO 16968	[mg/kg]	11	7,0	8,9	≤ 100	≤ 100
Lead (db)	ISO 16968	[mg/kg]	< 0,5	< 0,5	< 0,5	≤ 10	≤ 10
Mercury (db)	ISO 16968	[mg/kg]	< 0,075	< 0,075	< 0,075	≤ 0,1	≤ 0,1
Cadmium (db)	ISO 16968	[mg/kg]	< 0,1	< 0,1	0,11	≤ 0,5	≤ 0,5
Arsenic (db)	ISO 16968	[mg/kg]	< 0,5	< 0,5	< 0,5	≤ 1	≤ 1
Nickel (db)	ISO 16968	[mg/kg]	< 1	< 1	< 1	≤ 10	≤ 10
ash melting behaviour (ash preparation at 815°C)							
shrinking temperature SST	CEN/TS 15370-1	[°C]	1150	1110	830	-	-
deformation temperature DT	CEN/TS 15370-1	[°C]	1420	1390	1280	≥ 1200	≥ 1100
hemisphere temperature HT	CEN/TS 15370-1	[°C]	> 1550	> 1550	> 1550	-	-
flow temperature FT	CEN/TS 15370-1	[°C]	> 1550	> 1550	> 1550	-	-

* for bags or sealed big bags, ar...as received, db...dry basis

BEA Institut für Bioenergie GmbH

Avedikstraße 21, 1150 Wien, AUSTRIA

P: +43 1 89093 91 | F: +43 1 89093 92

office@bioenergy.co.at

www.bioenergy.institute



Accredited inspection body



DI Philipp Koskarti