

For the production of wood pellets produced by

Šišarka d.o.o., Županja, Croatia

certified according to **ENplus** class **A1** and **A2** with the ID number: **HR005**

we confirm the following test results analysed within the inspection 2017 valid until the inspection in 2018.

Sample 2017084	Standard	unit	Pellets A1	Pellets A2	Limit values according ENplus	
					Class A1	Class A2
mechanical durability	ISO 17831-1	[%]	98,7	98,2	≥ 98,0	≥ 97,5
bulk density (ar)	ISO 17828	[kg/m³]	590	600	750≥BD≥600	750≥BD≥600
moisture content	ISO 18134-2	[%]	6,5	6,8	≤ 10	≤ 10
ash content 550°C (db)	ISO 18122	[%]	0,67	1,03	≤ 0,7	≤ 1,2
net calorific value (ar)	ISO 18125	[MJ/kg]	16,6	16,5	≥ 16,5	≥ 16,5
net calorific value (ar)	ISO 18125	[kWh/kg]	4,6	4,6	≥ 4,6	≥ 4,6
Sulphur content (db)	ISO 16994	[%]	0,016	0,011	≤ 0,04	≤ 0,05
Chlorine content (db)	ISO 16994	[%]	0,006	<0,005	≤ 0,02	≤ 0,02
Nitrogen content (db)	ISO 16948	[%]	0,13	0,12	≤ 0,30	≤ 0,50
pressing aid / additives	-	[%]	none	none	≤ 2	≤ 2
<b>dimensions</b>						
fines (< 3,15 mm)	ISO 18846	[%]	0,39	0,35	≤ 0,5* / ≤ 1	≤ 0,5* / ≤ 1
length (3,15 ≤ L ≤ 40 mm)	ISO 17829	[%]	99,1	99,7	> 98,5* / >98	> 98,5* / >98
length (40 ≤ L ≤ 45 mm)	ISO 17829	[%]	0,5	0,0	≤ 1	≤ 1
length (> 45 mm)	ISO 17829	[amount]	none	none	0	0
diameter	ISO 17829	[mm]	6	6	6 or 8 ± 1	6 or 8 ± 1
<b>heavy metals</b>						
Chromium (db)	ISO 16968	[mg/kg]	<1,0	<1,0	≤ 10	≤ 10
Copper (db)	ISO 16968	[mg/kg]	1,2	1,1	≤ 10	≤ 10
Zinc (db)	ISO 16968	[mg/kg]	<5,0	<5,0	≤ 100	≤ 100
Lead (db)	ISO 16968	[mg/kg]	1,2	<0,5	≤ 10	≤ 10
Mercury (db)	ISO 16968	[mg/kg]	<0,05	<0,05	≤ 0,1	≤ 0,1
Cadmium (db)	ISO 16968	[mg/kg]	<0,10	<0,10	≤ 0,5	≤ 0,5
Arsenic (db)	ISO 16968	[mg/kg]	<0,50	<0,50	≤ 1	≤ 1
Nickel (db)	ISO 16968	[mg/kg]	<1,0	<1,0	≤ 10	≤ 10
<b>Ash melting behaviour (815°C ash preparation temperature)</b>						
shrinking temp. SST	CEN/TS 15370-1	[°C]	880	990	-	-
deformation temp. DT	CEN/TS 15370-1	[°C]	1260	1250	≥ 1200	≥ 1100
hemisphere temp. HT	CEN/TS 15370-1	[°C]	>1550	>1550	-	-
flow temperature FT	CEN/TS 15370-1	[°C]	>1550	>1550	-	-

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

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