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Test report 5061988

Order no. 5567851
Client no. 10028880



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Environment, Health and Safety

SGS Institut Fresenius GmbH
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Berlin, 27.11.2020

Your project: ENPlus®, JSC Borisovski DOK
Your order no.: 3338321; 1409204
Date of order: 07.10.2020

Testing period from 13.11.2020 until 26.11.2020
First sample no. 201153157
Sample entry 09.11.2020

SGS Institut Fresenius

i.V. Oliver Sommer
Customer Service

i.V. Maria Georgileas
Customer Service

Michaela Sosnová-Behnke
Customer Service

Sample matrix: Wood pellets
Sample delivery: Sample sent on behalf of the client
Sample entry: 09.11.2020
Testing period: 13.11.2020 until 26.11.2020

Sample no.:

201153157

Sample name:

 1-3338321, Wood Pellets 6 mm
27/09/2020

Parameter	Unit	LOQ	Method	Result	Limit ENplus® ¹			Lab
					A1	A2	B	
Average diameter	Millimeter		DIN EN ISO 17829	6,2	6 or 8 ± 1			B1
Average length	Millimeter		DIN EN ISO 17829	14,5	3, 15 to 40			B1
Overlengths > 40 and ≤ 45 mm	w-% ar		DIN EN ISO 17829	not found	≤ 1			B1
Overlengths > 45 mm	w-% ar		DIN EN ISO 17829	not found	not allowed			B1
Moisture	w-% ar	0,1	DIN EN ISO 18134-2	7	≤ 10			B1
Ash (550°C)	w-% d	0,1	DIN EN ISO 18122	0,43	≤ 0,7	≤ 1,2	≤ 2,0	B1
Mechanical Durability	w-% ar	0,1	DIN EN ISO 17831-1	99,2	≥ 98,0	≥ 97,5		B1
Net CV, const. p	MJ/kg ar	0,5	DIN EN ISO 18125	17,75	≥ 16,5			B1
Net CV, const. p	kWh/kg ar	0,14	DIN EN ISO 18125	4,931	≥ 4,6			B1
Bulk density	kg/m ³ ar	1	DIN EN ISO 17828	633	≥ 600 to ≤ 750			B1
Nitrogen	w-% d	0,1	DIN EN ISO 16948	< 0,10	≤ 0,3	≤ 0,5	≤ 1,0	B1
Sulphur total	w-% d	0,01	DIN EN ISO 16994	< 0,01	≤ 0,04	≤ 0,05		B1
Chlorine total	w-% d	0,01	DIN EN ISO 16994	< 0,01	≤ 0,02		≤ 0,03	B1
Shrinkage starting temperature SST	°C		DIN CEN/TS 15370-1 ³	1280	-			B1
Deformation temperature DT	°C		DIN CEN/TS 15370-1 ³	1450	≥ 1200	≥ 1100		B1
Hemisphere temperature HT	°C		DIN CEN/TS 15370-1 ³	1470	-			B1
Flow temperature FT	°C		DIN CEN/TS 15370-1 ³	1480	-			B1
Arsenic	mg/kg d	0,5	DIN EN ISO 16968	< 0,5	≤ 1			B1
Cadmium	mg/kg d	0,3	DIN EN ISO 16968	< 0,3	≤ 0,5			B1
Chromium	mg/kg d	1	DIN EN ISO 16968	< 1	≤ 10			B1
Copper	mg/kg d	2	DIN EN ISO 16968	2	≤ 10			B1
Lead	mg/kg d	3	DIN EN ISO 16968	< 3	≤ 10			B1
Mercury	mg/kg d	0,05	DIN EN ISO 16968	< 0,05	≤ 0,1			B1
Nickel	mg/kg d	1	DIN EN ISO 16968	< 1	≤ 10			B1
Zinc	mg/kg d	1	DIN EN ISO 16968	22	≤ 100			B1

Sample no.:

201153158

Sample name:

 2-3338321, Wood Pellets 6 mm
27/09/2020

Parameter	Unit	LOQ	Method	Result	Limit ENplus® ¹			Lab
					A1	A2	B	
Fines	w-% ar	0,1	DIN EN ISO 18846	0,5	≤ 1 (≤ 0,5) ²			B1

ar - result calc. to 'as received' state

d - result calc. to 'bone dry' state

LOQ - Limit of quantitation

1) Issue 06/2015

2) Value is valid for packing units up to 20kg; Value in parenthesis is valid for bigger packing units and bulk ware

3) Determination was performed under oxidizing conditions. Pre ashing temperature was 815°C.

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The laboratory locations of the SGS Group Germany and Switzerland according to the above abbreviations are listed at
<http://www.institut-fresenius.de/filestore/89/laborstandortkuerzelsgs2.pdf>

Summary of applied test methods:

DIN EN ISO 17829	2016-03
DIN EN ISO 18134-2	2017-05
DIN EN ISO 18122	2016-03
DIN EN ISO 17831-1	2016-05
DIN EN ISO 18125	2017-08
DIN EN ISO 17828	2016-05
DIN EN ISO 16948	2015-09
DIN EN ISO 16994	2016-12
DIN CEN/TS 15370-1	2006-12
DIN EN ISO 16968	2015-09

*** End of test report ***

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