TEST REPORT
BEA250284

Institut für Bioenergie

Date of report:	2025-02-17	page **1** of **2**
Client:	Control Union Certifications Germany GmbH	
Address:	Bornitzstraße 73-75, 10365 Berlin, GERMANY	

Order: Fuel testing according EN*plus*® certification program of wood pellets EN*plus*® ST.1001:2022

Order date:	2024-12-23; PRJ:853789	**Receipt of samples:**	2025-02-04
Sample(s):	6 mm wood pellets;	**Testing period:**	2025-02-05 – 2025-02-14
Sample details:	15 kg pellets in plastic bag class A1	; internal sample no.: BEA250284	

BEA250284 parameter EN*plus*®	limit values A1	limit values A2	result 2024-UN	unit
diameter	6 ± 1, 8 ± 1	6 ± 1, 8 ± 1	**6,1**	mm (ar)
length (3,15 ≤ L ≥ 40 mm)	(3,15 ≤ L ≤ 40)	(3,15 ≤ L ≤ 40)	**13,6 ± 5,5**	mm (ar)
length (40 ≤ L ≤ 45 mm)	≤ 1	≤ 1	**0,1**	%in mass (ar)
length (> 45 mm)	0	0	**0,0**	piece(s)
amount of pellets for length	≥ 100	≥ 100	**1 414**	piece(s)
moisture content	≤ 10,0	≤ 10,0	**6,3**	%in mass (ar)
ash content	≤ 0,70	≤ 1,20	**0,32**	%in mass (db)
mechanical durability	≥ 98,0	≥ 97,5	**98,0**	%in mass (ar)
bulk density	600 ≤ BD ≤ 750	600 ≤ BD ≤ 750	**670**	kg/m³ (ar)
particle density	-	-	**1,29**	g/cm³ (ar)
coarse fines (3,15 ≤ CPF < 5,6	-	-	**0,9**	%in mass (ar)
fines content (< 3,15 mm), bulk	≤ 1	≤ 1	**-**	%in mass (ar)
fines content (< 3,15 mm), bags	≤ 0,5	≤ 0,5	**0,4**	%in mass (ar)
net calorific value $q_{P,net}$	≥ 16,5	≥ 16,5	**18,3**	MJ/kg (ar)
net calorific value $q_{P,net}$	≥ 4,6	≥ 4,6	**5,10**	kWh/kg (ar)
net calorific value $q_{P,net}$	-	-	**19,7**	MJ/kg (db)
net calorific value $q_{P,net}$	-	-	**5,48**	kWh/kg (db)
gross calorific value $q_{V,gr}$	-	-	**19,9**	MJ/kg (ar)
gross calorific value $q_{V,gr}$	-	-	**5,52**	kWh/kg (ar)
nitrogen content	≤ 0,3	≤ 0,5	**0,09**	%in mass (db)
sulphur content	≤ 0,04	≤ 0,04	**<0,005**	%in mass (db)
chlorine content	≤ 0,02	≤ 0,02	**0,005**	%in mass (db)
arsenic	≤ 1	≤ 1	**<0,5**	mg/kg (db)
cadmium	≤ 0,5	≤ 0,5	**0,23**	mg/kg (db)
chromium	≤ 10	≤ 10	**<1**	mg/kg (db)
copper	≤ 10	≤ 10	**<1**	mg/kg (db)
lead	≤ 10	≤ 10	**<0,5**	mg/kg (db)
mercury	≤ 0,1	≤ 0,1	**<0,075**	mg/kg (db)
nickel	≤ 10	≤ 10	**<1**	mg/kg (db)
zinc	≤ 100	≤ 100	**8,9**	mg/kg (db)
shrinking temperature SST	-	-	**1080**	°C
deformation temperature DT	≥ 1200	≥ 1100	**1450**	°C
hemisphere temperature HT	-	-	**>1550**	°C
flow temperature FT	-	-	**>1550**	°C

db… dry basis, ar… as received

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director in charge

DI (FH) Magdalena Wojcik

Institut für Bioenergie GmbH – Ingenieurbüro für technische Chemie