



Ref: GIBEL/DBT-004

ATT: SGFE
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CERTIFICATE OF ANALYSIS

Sample provided by	SGFE
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Parameter	Premium	Diamond	Standard
Moisture (wet basis)	8.18 %	8.1 %	NF EU 1860-2
Volatile matter (dry basis)*	24.21 %	22.65 %	NF EU 1860-2
Ash (dry basis)*	9.79 %	4.04 %	NF EU 1860-2
Fixed carbon (dry basis)*	66.01%	73.3 %	NF EU 1860-2

* Average value on 3 tests

Interpretation:

- Good moisture levels
- Good volatile matter rates
- Good ash rates
- Fixed carbon rates suitable

Notes:

- Minimum fixed carbon content for char-briquettes: 65% (per EU standards)
- Maximum ash content for char-briquettes: 15% (per EU standards)
- Fixed carbon = 100 – (Ash + Volatile matter)

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ANALYSIS DETAILS: PREMIUM

Sample reference	Premium					
	1	2	3	1	2	3
Crucible number						
Mass of crucible (<i>m1</i>)	20.5661	18.9636	20.0914	20.5796	22.7110	27.2251
Mass of crucible + wet charcoal (<i>m2</i>)	21.5640	19.9675	21.0962	21.5782	23.7106	28.2321
Mass of crucible + dry charcoal (<i>m3</i>)	21.4788	19.8805	21.0094	21.4997	23.6333	28.1546
% Humidity (wet basis)	8.54	8.67	8.64	7.86	7.73	7.70
% Relative Error (±)	0.25	0.25	0.25	0.27	0.28	0.28
Mass of crucible + charcoal/ash after muffle (<i>m4</i>)	21.2553	19.6581	20.7903	20.6684	22.8021	27.3166
% Volatile matter	24.49	24.26	23.87			
% Ash				9.65	9.88	9.84
% Relative Error (±)	0.11	0.11	0.11	0.25	0.24	0.24

Sample number	1	2	3
Volatile matter (%)	24.49	24.26	23.87
Ash (%)	9.65	9.88	9.84
Fixed carbon (%)	65.86	65.87	66.29

ANALYSIS DETAILS: DIAMOND

Sample reference	Diamond					
Crucible number	4	5	6	4	5	6
Mass of crucible (m1)	19.2905	21.1476	19.3644	21.7681	19.5613	22.0351
Mass of crucible + wet charcoal (m2)	20.2909	22.1405	20.3597	22.7766	20.5646	23.0430
Mass of crucible + dry charcoal (m3)	20.2061	22.0561	20.2748	22.6986	20.4874	22.966
% Humidity (wet basis)	8.48	8.50	8.53	7.73	7.69	7.64
% Relative Error (±)	0.26	0.26	0.26	0.28	0.28	0.28
Mass of crucible + charcoal/ash after muffle (m4)	19.9978	21.8518	20.0679	21.8086	19.6002	22.0684
% Volatile matter	22.75	22.49	22.73			
% Ash				4.35	4.20	3.58
% Relative Error (±)	0.12	0.12	0.12	0.52	0.54	0.62

Sample number	4	5	6
Volatile matter (%)	22.75%	22.49%	22.73%
Ash (%)	4.35%	4.20%	3.58%
Fixed carbon (%)	72.90	73.31	73.70