



CERTIFICATE OF SAMPLING AND ANALYSIS

Our Principal : PGE Paliwa Sp. z o.o.
Vessel : MV ASTAKOS
Port of Discharge : Poland, Szczecin; Bytomskie quay
Inspection commenced : 13th October 2022 at 08:00
Inspection completed : 26th October 2022 at 22:45
Quantity (SGS Draft survey) : 26,868,4 Metric Tons
Description of goods : coal in bulk
Our Reference : 51/20000721/1450-001B

Inspection body accredited by the Polish Center for Accreditation, No. AK 013

This is to report that at the request of our Principal, we have performed inspection in accordance with the internal SGS procedures PQ-10 ed. 14 dd 26.07.2021, "The process of contract implementation, customer orders", IS-MIN-09 manual ed.11 dd. 10.09.2019, "Solid fuels quality inspection", IS-MIN-13 ed. 4 dd. 10.02.2019 manual "Screen test" in the scope of sampling, screen test analysis and we hereby report following:

SAMPLING Sampling during cargo reloading from the vessel mv M/V „ASTAKOS” at Szczecin Port. Cargo was divided into 3 lots.

cargo was discharged from 5 vessel's holds by 1-2 shore cranes equipped with grabs, relation: vessel – trucks -stock yard and vessel – wagons and vessel – stock place.

Samples were taken from stockpiles during discharge.

Manual sampling was performed by SGS, as per ISO 18283 5.2 during the discharge of the vessel. Increments were collected from a freshly exposed surface while the material was in motion, on a systematic, known-mass interval basis, with a fixed-increment mass.

The manual sampling method was agreed with the SGS Principal, as sampling by more reliable methods was not possible.

SGS Polska Sp. z o.o.

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Results of Analysis for fraction 8-25 mm:

	Unit	As Received Basis	As Determined Basis	Dry Basis	Dry Ash-Free Basis (daf)	Standard	
Total Moisture	%	8,1	4,1	-----	-----	PN - ISO 589 :2006 met A1	
Ash	%	15,0	15,7	16,4	-----	PN-ISO 1171:2002	
Volatile Matter	%	40,5	42,3	44,1	52,7	ISO 562:2010	
Total Sulphur	%	1,14	1,19	1,24	-----	ISO 19579:2006	
Gross Calorific Value	kJ/kg	25092	26184	27303	-----	PN - ISO 1928:2020-05	
Gross Calorific Value	kcal/kg	5993	6254	6521	-----		
Net Calorific Value	kJ/kg	23920	25061	26231	-----		
Net Calorific Value	kcal/kg	5713	5986	6265	-----		
Roga Index	-	4					PN-G-04508:2020-05

Analyses performed by SGS laboratory in Pszczyna, Poland, a company authorised by PCA to provide such analyses under authorisation number AB 313. Findings are limited to the date, time and place of our inspection only. Partial reproduction of this certificate is not allowed without our written permission.

Issued by SGS Polska Sp z o.o.
04th November 2022
Approved by: Paulina Milewska

For and on behalf of
 SGS Polska Sp z o.o.

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