

CERTIFICATE OF ACCREDITATION

**Korea East-West Power Co., Ltd. Dangjin Power
Complex**

Accreditation No. : KT271

Corporation Registration No. : 110111-2207151

Address of Laboratory : (Branch site)30, Gyoro-gil, Seongmun-myeon, Dangjin-si,
Chungcheongnam-do, Republic of Korea

Date of Initial Accreditation : November 29, 2005

Validity of Accreditation : February 22, 2022 ~ February 21, 2026

Scope of Accreditation : Attached Annex

Date of issue : February 22, 2022

This testing laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to Joint ISO-ILAC-IAF Communiqué).



Sanghoon Lee

Head

Korea Laboratory Accreditation Scheme

Korea Laboratory Accreditation Scheme

No. KT271

02. Chemical Testing

02.013 Petroleum products

Test method	Materials/ Products	Standard designation	Test range	Site	Field testing
ASTM D1401-19	Lubricating oil	Standard Test Method for Water Separability of Petroleum Oils and Synthetic Fluids	(0 - 60) min	BS	N
ASTM D1857/D1857M-18	Coal	Standard Test Method for Fusibility of Coal and Coke Ash	Temp. Range : (400 ~ 1 500) °C	BS	N
ASTM D3302/D3302M-19	Coal	Standard Test Method for Total Moisture in Coal	bituminous coal : (1.6 ~ 7.9) % subbituminous coal : (12.4 ~ 31.2) %	BS	N
ASTM D4239-18e1	Coal	Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Tube Furnace Combustion (Combustion Method A 1 350 °C)	bituminous coal : (0.2 ~ 3.0) % subbituminous coal : (0.3 ~ 1.6) %	BS	N
ASTM D445-19a	Lubricating oil	Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity)	(20 ~ 2 000) mm ² /s	BS	N
ASTM D5373-16	Coal	Standard Test Methods for Determination of Carbon, Hydrogen and Nitrogen in Analysis Samples of Coal and Carbon in Analysis Samples of Coal and Coke	Carbon : (54.9 ~ 84.7) %, Hydrogen : (3.25 ~ 5.10) %, Nitrogen : (0.57 ~ 1.80) %	BS	N
ASTM D5865/D5865M-19	Coal	Standard Test Method for Gross Calorific Value of Coal and Coke	(4.184 ~ 33.490) MJ/kg	BS	N
ASTM D6304-20	Lubricating oil	Standard Test Method for Determination of Water in Petroleum Products, Lubricating Oils, and Additives by Coulometric Karl Fischer Titration	(0 - 2.5) %	BS	N

Korea Laboratory Accreditation Scheme

No. KT271

Test method	Materials/ Products	Standard designation	Test range	Site	Field testing
ASTM D6971-09(2014)	Lubricating oil	AromaticAmine Antioxidant Content in Non-zinc Turbine Oils by Linear Sweep Voltammetry	(0 - 100) %	BS	N
ASTM D7582-15	Coal	Standard Test Methods for Proximate Analysis of Coal and Coke by Macro Thermogravimetric Analysis	Moisture : (1.29 - 21.66) % Ash : (2.93 - 16.73) % Volatile(bituminous coal) : (22.38 - 36.41) % Volatile(subbituminous coal) : (39.5 - 46.42) %	BS	N
ASTM D974-14e2	Lubricating oil	StandardTest Method for Acid and Base Number by Color-IndicatorTitration(9. Procedure for Acid Number)	(0 ~ 2.0) mgKOH/g	BS	N
ASTM E2550-17	Coal	Standard Test Method for Thermal Stability by Thermogravimetry	Temp. Range : (0 ~ 1 500) °C, DTA sensitivity : 0.001 °C	BS	N
BS EN 15407:2011	Solid boifuel	Solid recovered fuels- Methods for the determination of carbon(C), hydrogen(H) and nitrogen(N) content	C:(54.9 ~ 84.7)% H: (3.25 ~ 5.10) % N: (0.57 ~ 1.80) %	BS	N
BS EN ISO 18125:2017	Solid biofuel	Solidbiofuels - Determination of calorific value	(4.184 ~ 33.490) MJ/kg	BS	N
KS E 3707:2016	Coal	Determination of calorific value of coal and coke(5.7.2 b)automatic calorimeter)	(4.184 ~ 33.490) MJ/kg	BS	N
KS E ISO 579:2013	Coal	Coke-Determination of total moisture	bituminous coal : (1.6 ~ 7.9) % subbituminous coal : (12.4 ~ 31.2) %	BS	N

End.