



ISO/IEC 17025:2017

Globalqcert Laboratory UAE Branch Accreditation no: 7025 Date: November-20-2019 No: A0020111-021

Type of Lab: Chemical Testing Laboratory Website: <u>www.globalqcert.de</u> Add:Plot#569/274 , JAFZA 1, Jebel Ali Free Zoone, Dubai TEL:+971 56 345 0624 E-mail: <u>lab@globalqcert.de</u>

Is accredited in accordance with the recognised international Standard: ISO/IEC 17025:2017 conformity assessment- general requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for defined scope as detailed in and at the locations specified in schedule to this certificate:

Chemical Testing such as Heavy Petroleum Hydrocarbons and Various Oils and Minerals

The schedule to this certificate is an essential accreditation document and form time to time may be revised and reissued by the AIUKS. The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from the AIUKS website: www.aiuks.uk

This accreditation is subject to continuing conformity with AIUKS requirements. The absence of a schedule on the AIUKS website indicates that the accreditation is no longer in force Initial issue date: 11-04-2014 Renewal issue date: 20-11-2019 1st Surveillance audit:19-11-2020 Valid until:19-11-2022 Accreditation Manager, AIUKS Services.

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ANNEX 1

This Accreditation Demonstrates Technical Competence for Bitumen Scope Bitumen, Bituminous Materials, Bituminous Mixtures, Bituminous Binders, Asphalt, Semi-Solid Bituminous Materials.

Test Item	Description/ Details of Test	Applicable Range	Standard/ Test Method
	Spot Test of Asphalt Materials		AASHTO T 102
	Effects of Heat and Air on Asphaltic Materials (Thin-Film Oven Test)	((ASTM D1754 BS EN12607-2
Asphalt	Effect of Heat and Air on a Moving Film of Asphalt (Rolling Thin-Film Oven Test)		ASTM D2872 BS EN12607-1
Materials,	Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)		ASTM D5621-19a
Bituminous	Determining the Continuous Grading Temperatures and Continuous Grades for PG Graded Asphalt Binders	80 to 115 °C	ASTM D7643-16
Binders Bituminous	Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer		ASTM D7175-15
Mixtures	Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)		ASTM D6648-08
	Viscosity Determination of Asphalt at Elevated Temperatures Using a Rotational Viscometer	100 Cp - 2.5Kp	ASTM D4402
	Penetration of Bituminous Materials 100 gr, 25°C	Up to 500 dmm	ASTM D5 BS EN15326 KS 750-2:1986
Bitumen,	Determining of Softening Point of Bitumen (Ring-and-Ball Apparatus)	30 to 157 °C	ASTM D36 BS EN 1427 KS 750-6:1986
Bituminous	Determining of ductility of Semi-Solid Bituminous Materials (Pycnometer Method)		ASTM D70 BS EN 15326
Materials	Kinematic Viscosity of Asphalts	18 to 10000cSt	ASTM D2170 BS EN 12595
and	Determining the Ductility	Up to 150cm	ASTM D113
Semi-Solid Bituminous	determining of Solubility of Asphalt Materials in Trichloroethylene , Xylene & Toluene		ASTM D2042-15 BS EN 12592 KS 750-4:1986 KS ISO 3733: 1999
Materials	Flash and Fire Points by Cleveland Open Cup Tester	80 to 350 °C	ASTM D92
	Flash Point (open) and Fire Point of Bitumen Products by the Pensky-Martens Apparatus and Cleveland Open Cup.	Full	KS 750-3:1986
Bituminous Binders	Penetration-Graded Asphalt Binder for Use in Pavement Construction		ASTM D92 ASTM D6373 EN 1291
Cutback Bitumen	Specification of Cutback Bitumen and Asphalt MC-30,MC-70,MC 250,MC-800,MC-3000	Full	ASTM D2027-97 ASTM D2170-07 BS EN 15322:2013

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ANNEX 2

This Accreditation Demonstrates Technical Competence for Oils Scope Base Oil, Gear Oil, General Gas Oil, Hydraulic Fluids & Oils, Industrial Gear Oil, Turbine Oil, Diesel Lubricating Oil

Test Item	Description/ Details of Test	Applicable Range	Standard/ Test Method
	Acid Number	Full	ASTM D 664
	Aniline Point	Full	ASTM D 611
	Ash Content	Full	ASTM D 482
	Carbon Residue	Full	ASTM D189, ASTM D524
	Clay-Gel Absorption	Full	ASTM D2007, ASTM D7419
	Color	Full	ASTM D1500, ASTM D6045
	Copper Strip	Full	ASTM D130
	Density	Full	ASTM D1298, ASTM D4052
	Evaporation Loss	Full	ASTM D5762, ASTM D6375
Base Oil	Nitrogen by Boat Inlet	Full	ASTM D5762
	Flash Point	Full	ASTM D92, ASTM D93 KS ISO 6247:1998
	Nitrogen by Boat Inlet	Full	ASTM D5762
	Pour Point	Full	ASTM D97,ASTM D5950, ASTM D5985,ASTM D5949, ASTM D6749
	Refractive Index	Full	ASTM D1218, ASTM D1747
	Viscosity/Cold Crank Simulator	Full	ASTM D5293
	Viscosity, Kinematic	Full	ASTM D445, ASTM D2270, ASTM D7042
	Volatility	Full	ASTM D6417
	Additive Elements	Full	ASTM D4951, ASTM D5185
	API Gravity	Full	ASTM D287
Gear Oil	Ash Sulfated	Full	ASTM D874
	Copper Corrosion	Full	ASTM D130
	Flash Point	Full	ASTM D92, ASTM D93
	Pour Point	Full	ASTM D97, ASTM D5950
	Sulfur Content	Full	ASTM D4294
	Viscosity, Kinematic	Full	ASTM D445
	Viscosity, Low Temperature	Full	ASTM D2983
	Acid Number	Full	ASTM D 664
	Aniline Point	Full	ASTM D 611
	Ash Content	Full	ASTM D 482
General	Bromine Number	Full	ASTM D1159 ASTM D1500, ASTM D6045
Gas Oil	Color CCR - Carbon Residue	Full Full	ASTM D1500, ASTM D6045 ASTM D4530, ASTM D189
	Density/API	Full	ASIM D4530, ASIM D189 ASIM D4052, ASIMD287
	Distillation	Full	ASTM D4052, ASTMD207 ASTM D2887, ASTM D6352
		Full	
	Metals, V, Ni, Fe, Na		ASTM D5863, ASTM D5708
	Viscosity, Kinematic @ 100oC	Full	ASTM D445

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Test Item	Description/ Details of Test	Applicable Range	Standard/ Test Method
	Acid Number	Full	ASTM D1121, ASTM D974
	Air Release	Full	ASTM D 3427
	Cu+ Corrosion	Full	ASTM D 130
	Elements by ICP	Full	ASTM D5185, ASTM D4951
	Flash Point	Full	ASTM D92
Hydraulic 🕇	Foaming Characteristics	Full	ASTM D892
Fluids &	Oxidation Stability	Full	ASTM D2272
	pH @ 25oC	Full	ASTM E70
Oils	Rust Prevention	Full	ASTM D2619
0140	Stability, Hydrolytic	Full	ASTM D5762
	Viscosity, Kinematic	Full	ASTM D445
	Thermal Stability	Full	ASTM D2070
	Pour Point	Full	ASTM D97,ASTM D5950
	Water Separability	Full	ASTM D1401
	Demulsibility	Full	ASTM D2711
	Flash Point	Full	ASTM D92, ASTM D93
	4-Ball EP	Full	ASTM D2783
	4-Ball Wear	Full	ASTM D4172
Industrial 🔤	Pin and V-block	Full	ASTM D3233
	Pour Point	Full	ASTM D97
Gear Oil	Rust Prevention	Full	ASTM D665
	Timken EP	Full	ASTM D2782
	Viscosity, Kinematic	Full	ASTM D445
	Water Separability	Full	ASTM D1401
	Cu+ Corrosion	Full	ASTM D130
	Acidity	Full	ASTM D974
	Air Release	Full	ASTM D3427
	Copper Corrosion	Full	ASTM D130
	Demulsibility	Full	ASTM D2711
Turbine	Flash Point	Full	ASTM D92, ASTM D93
oil	Pour Point	Full	ASTMD665
	Rust Prevention	Full	ASTM D445
	Viscosity, Kinematic	Full	ASTMD1401
	Water Separability	Full	ASTM D6304
	Water Content	Full	ASTM D665

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Test Item	Description/ Details of Test	Applicable Range	Standard/ Test Method
	Acid Number	Full	ASTM D664
	Base Number	Full	ASTM D2896, ASTM D4739
	Cloud Point	Full	ASTM D7689
	Flash Point	Full	ASTM D92, ASTM D93, ASTM D3828
Diesel	Fuel Dilution	Full	ASTM D3524
Lubricating	Glycol	Full	ASTM D2982, ASTM D4291
Oil Cil	Houillon Kinematic Viscosity	Full	ASTM D7279
	Insolubles	Full	ASTM D893, ASTM D4055
	Metal/Wear Contaminants	Full	ASTM D5185 ASTM D6595
	Viscosity, Kinematic	Full	ASTM D445, ASTM D7042
	Viscosity Index	Full	ASTM D2270
	Acid and Base Number by Color-Indicator Titration	≤ 1 mg KOH/g	ASTM D974-14 ASTM D664
	Determination of Used and Unused Lubricating Oils and Base Oils by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES)	≤25 mg/Kg	ASTM D5185-18 ASTM D4927 ASTM D4951 ASTM D4628
	Sediment in Crude Oils and Fuel Oils by the Extraction Method	≤ 0.1 mg KOH/g	ASTM D473 ASTM D2896
	Determination of Organic Chloride Content in Crude Oil	≤ 50 µg/g	ASTM D4929 KS 2491:2013
Base oil	Trace Ethylene Glycol in Used Engine Oil	\leq 10 mg/Kg	ASTM D4291 KS 2491:2013
Specification	Corrosiveness to Copper from Petroleum Products by Copper Strip Test		ASTM D130-19 KS 2491:2013
	Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography	≤ 10 mg/Kg	ASTM D4059 KS 2491:2013
	Halogenated and Aromatic Volatile Organic Compounds (VOCs) by Gas Chromatography	≤ 10 mg/Kg	EPA 8120/8021 KS 2491:2013
	Determination of Water in Liquid Petroleum Products by Karl Fischer Reagent (Withdrawn 2016)	≤ 200	ASTM D1744-13 ASTM D6304
	Ash from Petroleum Products	≤1 %	ASTM D482
Gear lubricants	Viicosity Grades Determination Test	VG 32 TO VG 1500	API-GL-2 IS 2297:1997

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ANNEX 3

This Accreditation Demonstrates Technical Competence for Minerals Scope

Iron Ores, Aluminum& Copper Powder, Cuprous Oxide, Aluminum Sulfate, Copper Concentrate, Phosphorus, Magnesium, Manganese, Arsenic, Portland Cement, Caustic Soda, Barite& Bentonitic

Test Item	Description/ Details of Test	Applicable Range	Standard/ Test Method
Iron Ores	Apparatus, Reagents, and Safety Considerations for Chemical Analysis of Metals, Ores, and Related Materials	4	ASTM E50-17
Copper Powder	Trace Metallic Impurities in High Purity Copper by High-Mass-Resolution Glow Discharge Mass Spectrometer	0 to 100 %	ASTM F2405-04
Cuprous Oxide	Chemical Analysis of Cuprous Oxide and Copper Pigments	FULL	ASTM D283-13
Aluminum <mark>Sulfate</mark> 1	Apparatus, Reagents, and Safety Considerations for Chemical Analysis of Metals, Ores, and Related Materials	4	ASTM E50-17
Copper Con <mark>ce</mark> ntrate	Determination of Copper in Unalloyed Copper by Gravimetry	0 TO 100%	ASTM E53-07
Phosphorus Magnesium Manganese Arsenic	CP Analysis & ICP Testing ICP-AES & ICP-MS Methods ICP Mass Spectrometry Analysis	FULL	E1613 (2012) ASTM C1111-10 ISO 26845 (2008) MIL Specifications
Portland Cement EN42.5	Early strength lower limit value Standard strength lower limit value Initial setting time lower limit value Soundness upper limit value Sulfate content upper limit value Chloride content upper limit value	FULL FULL FULL FULL FULL	EN196-1 KEBS/ TC 077
Caustic Soda (NAOH)	NaOH Carbonate as Na2CO3 Chloride as NaCl Sulfate as Na2SO4 Heavy metals as Pb	FULL FULL FULL FULL FULL	ASTM E291-18
Aluminum Powder, Polymer Coated	Sampling and Testing of Flaked Aluminum Powders and Pastes	FULL	ASTM D480-88 ISO 3310:2013
Barite	Specification for Drilling Fluids - Specifications and Testing	FULL	API 13A ASTM D-1210
Bentonitic	Density of Bentonitic Slurries	FULL	ASTM D4380-12



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