

Quality And Accreditation Institute

Centre for International Accreditation

(formerly Centre for Laboratory Accreditation)



Certificate of Accreditation

Master Labs for Technical Testing, Inspection, and Calibration Services

Shop No. 68, Building No. 1981, Road No. 1527, Block 115,
Hidd, Kingdom of Bahrain

has been assessed and accredited in accordance with the Standard

ISO/IEC 17025:2017

“General Requirements for the Competence of Testing and Calibration Laboratories”
In the field of
Testing

This certificate remains valid for the Scope of Accreditation as specified
in the annexure subject to continued compliance to the above standard &
any other requirements specified by QAI.



QAI/CIA/TL/2024/0036

Valid from: 06 January 2024

Valid until: 05 January 2026

Dr. Bhupendra Kumar Rana
Chief Executive Officer

Prof. Vikram Kumar
Chair, CIA

User is advised to verify the current scope of accreditation by visiting our website: www.qai.org.in



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Biological Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
	Water		
1.	Waste water, treated water, surface water and ground water	Total Coliform	Colilert based on SMEWW 9223B
2.	Waste water, treated water, surface water and ground water	E. coli	Colilert based on SMEWW 9223B



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Chemical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
	Water		
1.	Drinking water, waste water, treated water, surface water, sea water, ground water	pH	SMEWW 24th edition 4500 H+ B
2.	Drinking water, waste water, treated water, surface water, sea water, ground water	Conductivity	SMEWW 24th edition 2510 B
3.	Drinking water, waste water, treated water, surface water, sea water, ground water	Total suspended Solid (TSS)	SMEWW 24th edition 4540 D
4.	Drinking water, waste water, treated water, surface water, ground water	Ammonia	HACH LCK 303 and 304 according to Standard DIN 38406E5-1, UNI 11669:2017 Indophenol Blue Method
5.	Drinking water, waste water, treated water, surface water, sea water, ground water	Total phosphate	HACH LCK 348 and 350 according to Standard DINEN 6878/D11 Phosphomolybdenum Blue method
6.	Drinking water, waste water, treated water, surface water, sea water, ground water	Nitrite	HACH LCK 341 and 342 according to Standard DIN 38405 D10, Diazotization method
7.	Drinking water, waste water, treated water, surface water, sea water, ground water	Nitrate	HACH LCK 339 according to Standard DIN 38405 D9-2 2,6 Diphenyl phenol method.
8.	Waste water, treated water, surface water and ground water	Hydrogen sulfide	HACH LCK 653 according to Standard DIN 38405-D26, Dimethyl-p-phenylenediamine method

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2 of 9

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Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
	Water		
9.	Waste water, treated water, surface water and ground water	COD	HACH LCK 114 and 314 according to Standard DIN 38409-H41-H44, Dichromate Method
10.	Waste water, treated water, surface water and ground water	BOD	SMEWW 24th edition 5210B
11.	Drinking water, waste water, treated water, surface water, sea water, ground water	Sulfate (SO ₄)	LCK 153, LCK 353 Barium Sulphate method
12.	Drinking water, waste water, treated water, surface water, sea water, ground water	Chloride	SMEWW 24th edition 4500 Cl B



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Chemical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At Permanent Laboratory			
1.	Concrete	Dimension, Density and Compressive Strength of Hardened Concrete Cube	BS EN 12390-1:2012 BS EN 12390-7:2019 BS EN 12390-3:2019
2.	Concrete	Water Absorption of Hardened Concrete	BS 1881-122:2011+A1: 2020
3.	Concrete	Splitting Tensile Test of Paving Blocks	BS EN 1338:2003 (Annex F)
4.	Concrete	Water Absorption of Paving Blocks Dimension of Paving Blocks	BS EN 1338:2003 (Annex E) BS EN 1338:2003 (Annex C)
5.	Concrete	Dimension and Compressive Strength of Hollow Blocks Net and Gross	BS EN 772-16:2011 BS EN 772-1:2011 A1:2015 BS EN 772-13:2000
6.	Concrete	Bending Strength and Dimension of Kerbs	BS EN 1340:2003 (Annex F) BS EN 1340:2003 (Annex C)
7.	Concrete	Water Absorption of Kerb	BS EN 1340:2003 (Annex E)
8.	Concrete	Water Absorption of Hollow Blocks	BS EN 772-11:2011
9.	Concrete	Compressive Strength of Paving Units	BS EN 6717-1:1993

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4 of 9

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Mechanical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At-Site			
1.	Concrete	Slump and Temperature Test of Fresh Concrete	BS EN 12350-1:2019 BS EN 12350-2:2019
At Permanent Laboratory			
1.	Aggregate	Particle Size Distribution (Sieve Analysis)	BS EN 933-1:2012
2.	Aggregate	Moisture Content by Oven Drying Method	BS EN 1097-5: 2008
3.	Aggregate	Loss Angeles Abrasion Test	ASTM C 131/131M-2020
4.	Aggregate	Loss Angeles Abrasion Test	ASTM C 535 - 16
5.	Aggregate	Clay Lumps & Friable Particles	ASTM C142/C142M - 17
6.	Aggregate	Soundness Test	ASTM C88 – 18
7.	Aggregate	Shell Content in Coarse Aggregates	BS EN 933-7:1998
8.	Aggregate	Specific Gravity and Water Absorption of Fine Aggregates	ASTM C128 – 15
9.	Aggregate	Specific Gravity and Absorption of Coarse Aggregate	ASTM C127 - 15
10.	Aggregate	Aggregate Crushing Value (ACV)	BS 812 – 110: 1990
11.	Aggregate	Flakiness Index	BS EN 933-3:2012
12.	Aggregate	Elongation Index	BS 812-105.2

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5 of 9

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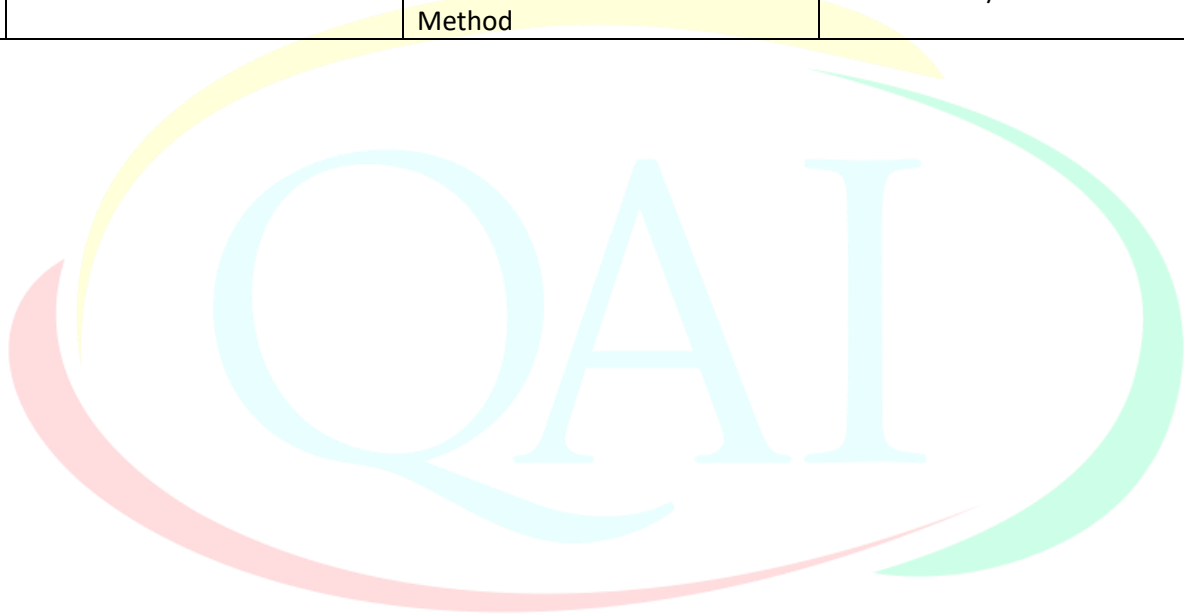
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Mechanical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At-Site			
13.	Aggregate	Determination of Ten Percent Fines	BS 812: Part 111
14.	Asphalt	In Situ Density of Bituminous Concrete in Place by Nuclear Method	ASTM D2950/2950M:2022



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Mechanical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At Permanent Laboratory			
1.	Soil	Particle Size Distribution (Sieve Analysis)	BS 1377-2: 2022 (Cl.10) (BS EN ISO 17892-4)
1.	Soil	Particle Size Distribution (Sieve Analysis)	ASTM – D 422 – 63 (Re- Approved 2007)
2.	Soil	Laboratory Compaction Test Using 2.5 Kg and 4.5 Kg Rammer	BS 1377-2: 2022 (Cl.11)
3.	Soil	Laboratory California Bearing Ratio (CBR)	BS 1377-2: 2022 (Cl.15)
4.	Soil	Determination of Liquid Limit by Casagrande Apparatus	BS 1377-2: 2022 (Cl.5.4) (BS EN ISO 17892-12:2018 +A2:2022)
5.	Soil	Determination of Liquid Limit by Cone Penetrometer	BS 1377-2: 2022 (Cl.5.2) (BS EN ISO 17892-12:2018 +A2:2022)
6.	Soil	Determination of Plastic Limit and Plasticity Index	BS 1377-2: 2022 (Cl.6.0) (BS EN ISO 17892-12:2018 +A2:2022)
7.	Soil	Determination of Linear Shrinkage	BS 1377-2:2022 (Cl.7.0)
8.	Soil	Determination of Particle Density of Soil	BS 1377-2:2022 (Cl.9.0) (BS EN ISO 17892-3)
9.	Soil	Moisture Content of Soil by Oven Drying Method	BS 1377 – 2: 2022 (Cl.4.1) (BS EN ISO 17892-1)
10.	Soil	Organic Impurities	BS 1377 – 3: 1990 Test 3
11.	Soil	Acid Soluble Chloride (as NaCl)	BS 812 Part 117
12.	Soil	Total Soluble Salt	BS 1377-Part 3 Clause 5.0
13.	Soil	Acid Soluble Sulphate (as SO ₃)	BS 812 Part 118

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7 of 9

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Mechanical Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At Permanent Laboratory			
14.	Soil	Sulphate Content	BS 1377-Part 3 Clause 5.0
15.	Soil	Chloride Content	BS 1377-Part 3 Clause 7.0
At-Site			
1.	Soil	In Situ Density and Compaction Test (Nuclear Method)	BS 1377 – 9: 1990 (Cl. 2.5)
2.	Soil	In Situ California Bearing Ratio Test (CBR)	BS 1377 – 9: 1990 (Cl. 4.3)



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Non-Destructive Testing			
Sl. No.	Product(s)/Material of Test	Specific Tests Performed	Test Method
At-Site			
1.	NDT	Rebound Hammer Test	BS EN 12504-2:2012

