

Schedule

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LABORATORY LOCATION/ CENTRAL OFFICE:	RTL Lab Sdn. Bhd. 57, Jalan Zuhrah BH U5/BH Subang Murni Seksyen U5 40150 Shah Alam, Selangor , 40150, SELANGOR MALAYSIA
	
ACCREDITED SINCE :	06 APRIL 2025
FIELD(S) OF TESTING:	MECHANICAL

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2017 (ISO/IEC 17025:2017).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

CENTRAL LOCATION:	RTL Lab Sdn. Bhd. 57, Jalan Zuhrah BH U5/BH Subang Murni Seksyen U5 40150 Shah Alam, Selangor , 40150, Selangor
FIELD(S) OF TESTING :	MECHANICAL,

SCOPE OF TESTING : MECHANICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Aggregates	Determination of Aggregate	BS 812: Part 110: 1990
	Clay, Silt and Dust Content	BS EN 933-1 : 2012
	Determination of Water Content	MS EN 1097 : Part 5 : 2011
	Fines Content (Washing & Sieving Method)	BS EN 933-1:2012, clause 7.1
	Particle Size Distribution /	BS EN 933-1:2012
	Flakiness Index of Coarse Aggregates	BS 812: Part 105: Sect 105.1: 1989
	Potential Alkali Reactivity of	ASTM C 1260 - 21
	Flakiness Index of Coarse Aggregates	BS 812: Part 105: Sect 105.1: 1989
	Potential Alkali Reactivity of	ASTM C 1260 - 21
	PH value by the Electrometric	BS 1377:Part 3 2018

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	19. Potential Alkali Reactivity	ASTM C 1260-14
	Determination of Flakiness Index of Coarse Aggregates	BS 812: Section 105.1: 1989 MS 30: Part 5: 1995: Section 1 EN 933-3: 2012
	Determination of Elongation Index of Coarse Aggregates	BS 812: Section 105.2: 1990 MS 30: Part 5: 1995: Section 2
	Determination of Aggregate Crushing Value	BS 812: Part 110: 1990 MS 30: Part 8: 1995
	Determination of Ten Percent Fines Value	BS 812: Part 111: 1990 MS 30: Part 9: 1995
	Determination of Organic Impurities in Fine Aggregates for Concrete	ASTM C40/40M-20
	Clay Lumps and Friable Particles in Aggregates	ASTM C142/C142M-17
	None	BS 812: Part 103-1: 1985
	Sulphate	BS EN 1744-1:2009+A1:2012, Clause 10 & 12
	Chloride	BS EN 1744-1:2009+A1:2012, Clause 7
	pH Value	BS 1377: Part 3: 1990: Clause 9
	Clay, Silt and Dust	BS 812: Part 1:1975, Clause 7.2.4
	Particle densities and water absorption	BS 812: Part 2: 1995, Clause 5
	Soundness of aggregates	ASTM C88/C88M-18
	Flakiness Index	BS 812: Section 105.1: 1989
	Elongation Index	BS 812: Section 105.2: 1990
	Aggregate crushing value	BS 812: Part 110: 1990
	Ten percent fines value	BS 812: Part 111: 1990
	Particle size distribution (Sieving Method)	BS EN 933-1:2012 MS EN 933-1:2011
	Aggregate impact value	BS 812: Part 112: 1990
	Particle densities and water	BS 812: Part 2: Clause 5: 1995
	Particle Size Distribution (Sieving Method)	MS EN 933-1: 2011
	Flakiness Index	BS 812: Part 103.1: 1985
	Elongation Index	BS 812: Section 105.1: 1989
	Elongation Index	MS 30: Part 5: 1995: Section 2
	Elongation Index	BS 812: Part 105.2: 1990
	Clay, Silt & Dust Content (Decantation Method)	BS 812: Part 1: 1975: Clause 7.2.4
	Particle Density & Water Absorption (Pyknometer Method)	None
	Aggregate Crushing Value (ACV)	BS 812: Part 2: 1995
	Aggregate Crushing Value (ACV)	MS EN 1097-6: 2011
	Aggregate Crushing Value (ACV)	MS 30: Part 8: 1995 (confirmed 2011)
	Aggregate Crushing Value (ACV)	BS 812: Part 110: 1990
	Ten Percent Fine Value (TFV)	MS 30: Part 9: 1995 (confirmed 2011)

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	Ten Percent Fine Value (TFV)	BS 812: Part 111: 1990
	Aggregate Impact Value (AIV)	MS 30: Part 10: 1995 (confirmed 2011)
	Aggregate Impact Value (AIV)	BS 812: Part 112: 1990
	Soundness Test	MS 30: Part 17: 1995
	(Magnesium Sulphate)	BS 812: Part 121: 1989
	Soundness Test	ASTM C88-2018
	(Sodium Sulfate/ Magnesium Sulfate)	None
	Particles Size Distribution by Sieving Method	BS EN 933-1
	Elongation Index	BS 812-105.2
Hardened Concrete	Compressive Strength of	BS EN 12504-1:2019
	Compressive Strength of	MS EN 12390-3:2012
	Compressive Strength of Concrete	MS EN 12504 : Part 1 : 2013
	Compressive Strength of Test	BS EN 12390-3: 2019
	Compressive Strength of	BS EN 12390-3: 2019
	Compressive Strength of Concrete Cube	BS EN 12390-3:2009 MS EN 12390-3:2012
	Compressive Strength of Concrete Cube (0-2000 kN)	BS EN 12390-3:2009
	Density of Hardened Concrete	BS EN 12390-7:2009
	Surface Hardness Test by	BS EN 12504-2:2012
	Compressive Strength of	BS EN 12390-3: 2019
	Compressive Strength Test (Cubes, Cores & Cylinders)	BS EN 12390-3: 2019 (Test at ambient conditions)
	Surface Hardness Testing by	BS EN 12504 -" 2: 2021
	Compressive Strength Test (Cubes, Cores & Cylinders)	BS EN 12390-3: 2019 (Test at ambient conditions)
	Surface Hardness Testing by	BS EN 12504 -" 2: 2021
	Compressive Strength of Concrete Cube & Cylinder in the force range of OKN to	BS EN 12390-3:2009 MS EN 12390-3:2012
	Compressive Strength of Concrete Core in the force range of OKN to 3000kN	BS EN 12504-1:2009 MS EN 12504-1:2013
	Determination of Density	BS EN 12390-7:2009
	Determination of Density, Absorption and Voids	ASTM C 642:13
	Initial Surface Absorption	BS 1881 Part 208: 1996
	Rapid Chloride Permeability	AASHTO Designation T277:15
	7. Water Permeability	DIN 1048 Part 5: June 1991
	8. Static Modulus of Elasticity in Penetration Resistance in the	ISO 1920 Part 10: 2010
	Compressive Strength of	ASTM C 803/C 803M -18
	Rebound Hammer Test	None
	Compressive Strength of	BS EN 12504-2: 2021
	Compressive Strength of	MS EN 12390-3:2012

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
	Compressive Strength of Concrete Cube in the force range of 0 kN to 3000 kN	MS EN 12390-3:2012 BS EN 12390-3:2019
	Compressive Strength of Concrete Cube	MS EN 12390-3: 2012 (curing on specimens performed by customer)
	Concrete Cube	customer)
	Compressive Strenght of Cubes	Test instruction reference to BS EN
Mechanical Coupler	Tensile Strength Test	BS EN ISO 6892-1:2019, Method B
	Slip Test	ISO 15835-2:2018, Clause 5.4,
	Tensile Test	ISO 6892-1: 2009
Multi-wire Steel	BS 5896:2012	ISO 15630-3:2019, Clause 5
	Tensile Test	BS EN ISO 15630 -" 3 : 2019 Clause 5
	Tensile Test	BS EN ISO 15630 -" 3 : 2019 Clause 5
Prestressing Strand	None	BS 5896:2012, Clause 9
Soil	Moisture Content	BS 1377: Part 2: 1990, Clause 3.2
	Particle Size Distribution	BS 1377: Part 4: 1990, Clause 9.5
	Field Density Test: Core Cutter	BS 1377: Part 9: 1990, Clause 2.4
	Determination of Moisture	BS 1377:Part 2:1990 Clause 3.2
	Particle Size Distribution	BS 1377: Part 2: 1990, Clause 9.2 & 9.3
	Moisture Content	BS 1377: Part 2: 1990, Clause 3.2
	California Bearing Ratio (Soaked)	BS 1377: Part 4: 1990, Clause 7
	Dry Density / Moisture Content Relationship (4.5 kg Rammer Method)	BS 1377: Part 4: 1990, Clause 3.6
	Liquid Limit (Casagrande Apparatus Method)	BS 1377: Part 2: 1990, Clause 4.5
	None	Part 2: BS 1377 1990, Clause 5.3 & 5.4
	Dry Density / Moisture Content	Part 4: MS 1056 2005, Clause 4.5 & 4.6
	Dry Sieving Method	MS 1056 Part 2 : 2005, Clause 10.3 Part 2 : 1990, Clause 9.3 BS 1377
	Determination of Moisture Content	BS 1377: Part 2: 1990 Clause 3.2
	Moisture Content	BS 1377 Part 2: 1990 : Clause 3.2
	Liquid Limit (Cone Penetrometer Method)	BS 1377 Part 2: 1990 : Clause 4.3
	In-situ Density Test by Sand	None
	pH	MS 2457: 2012
	Electrical Conductivity	MS 2458: 2012
	Available Phosphorus	In-house method S07 based on Bray & Kurtz, 1945 & ICP-OES

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	Total Nitrogen	MS ISO 13878: 2014
	Total Phosphorus	In-house method S13 based on EPA Method 3050B & ICP-OES
	Determination of Particle Density (Small Pyknometer Method)	BS 1377:1990 Part 2, Clause 8.3
	Determination of Particle Size Distribution (Dry Sieving Method)	BS 1377:1990 Part 2, Clause 9.3
	Determination of Particle Size Distribution (Wet Sieving Method)	BS 1377:1990 Part 2, Clause 9.2
	Determination of Particle Size	None
	Determination of Water Content	BS 1377: Part 2
	Determination of pH value of fine	BS 1377-3: 2018
	Determination of Soil pH	MS 678: Part - V: Part I, Soil pH:
	None	None
	Total Recoverable Elements	USEPA 200.2 Rev. 2 : 8 EMMC
	Chloride	MS 678: Part VI to
	In-situ Density Test	BS 1377: Part 9:1990 Clause 2.1
	Moisture Content	BS EN ISO 17892-1:2014
	Particle Size Distribution -" Wet	BS EN ISO 17892-4:2016
	Arsenic, Mercury, Cadmium,	EPA 3050 B
	Loss on Ignition	BS 1377 part 3: 1990 (Clause 4)
	Carbonate	BS 1377 Part 3: 1990 (Clause 6.3)
	Moisture Content	BS 1377-1: 2016
	In-situ California Bearing Ratio (CBR)	BS 1377 : Part 9 : 1990 Clause 4.3
	Moisture Content	BS 1377-1: 2016
	In-situ California Bearing Ratio (CBR)	BS 1377 : Part 9 : 1990 Clause 4.3
	pH Value	BS 1377-3:1990:9.5
	None	None
	Aluminum (Al)	USEPA 200.2, Revision 2.8, 1994
	Particle Size Distribution (gravel,	In House Method 0588 based on
	Determination of Particle Size Distribution for Soils	BS 1377: Part 2: 1990 Clause 9
	Determination of Moisture Content	BS 1377: Part 2: 1990 Clause 3.2
	Determination of the Liquid Limit (Casagrande apparatus method)	BS 1377: Part 2: 1990 Clause 4.5
	Determination of the Plastic Limit and Plasticity Index	BS 1377: Part 2: 1990 Clause 5
	Determination of dry density/moisture content relationship (Rammer Method)	BS 1377: Part 4: 1990 Clause 3.3, 3.4, 3.5 & 3.6
	Determination of dry density/moisture content relationship (Vibrating Hammer Method)	BS 1377: Part 4: 1990 Clause 3.7
	Determination of soil density test	BS 1377: Part 2: 1990 Clause 7
	Determination of The Moisture	BS 1377: Part 2:1990: Method 3.2

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	Determination of In-Situ Density	BS 1377: Part 9: 1990
	Determination of The Moisture	BS 1377: Part 2:1990: Method 3.2
	Toxicity characteristic leaching	USEPA 1311: 1992
	Phosphorus, P Sulphur, S	None
	SVOCs (Refer to Appendix 2 and 3 for	EPA Method 3510C: 1996
	Determination of Moisture Content	BS 1377:2:1990, Clause 3.2 MS 1056:2:2005, Clause 4.2
	Determination of Density	BS 1377:2:1990, Clause 7.2 MS 1056:2:2005, Clause 8.2
	Linear Shrinkage	BS 1377:2:1990, Clause 6.5 MS 1056:2:2005, Clause 7.5
	Determination of Particle Density	BS 1377:2:1990, Clause 8.3 MS 1056:2:2005, Clause 9.3
	Determination of Liquid Limit Using Casagrande Method	BS 1377:2:1990, Clause 4.5 & 4.6 MS 1056:2:2005, Clause 5.5 & 5.6
	Determination of Liquid Limit Using Cone Penetrometer Method	BS 1377:2:1990, Clause 4.3 & 4.4 MS 1056:2:2005, Clause 5.3 & 5.4
	Determination of the Plastic Limit	BS 1377:2:1990, Clause 5
	Maximum dry density / Moisture content relationship	BS 1377: Part 4: 1990
	Shear Strength Test without	None
	The laboratory Vane e	BS 1377: Part 7: 1990: Clause 3
	Field Density Test (Sand Replacement Method)	BS 1377: Part 9:1990 Clause 2.1
Steel Bar	Plastic limit test	Test instruction reference to BS
	Moisture content	BS1377-2, Clause 4.1
	Tensile Strength Test	MS ISO 15630-1:2012, Clause 5
	Bend and Rebend Test on	MS ISO 15630-1 : 2012
	Tensile Testing to measure yield	None
	Metallic Material -" Tensile Testing at	MS ISO 6892: 2002 (Excluding Site
Steel Fabric	Ambient Temperature (Max 500 KN)	Sampling) & MS 146: 2014
	Tensile Strength Test	MS ISO 15630-1:2012, Clause 5
	Tensile Strength Test in the range of 0 to	MS145: 2014 Clause 7.2.3 & 9
	Tensile Tests for determination of:	ISO 15630-2 : 2019 Clause 5
	Measurement of The Geometrical	ISO 15630-2 : 2019 Clause 10.1
	Tensile Tests for determination of:	ISO 15630-2 : 2019 Clause 5
Steel Fabric / Brc	Measurement of The Geometrical	ISO 15630-2 : 2019 Clause 10.1
	Measurement of the Geometrical	BS EN ISO 15630-2:2019, Clause 10.1
Steel Wire	Tensile Strength Test	MS ISO 15630-1:2012, Clause 5
	Tensile Tests for determination of:	BS EN ISO 15630-1 : 2019 Clause 5
	Tensile Tests for determination of:	BS EN ISO 15630-1 : 2019 Clause 5

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