


NO: SAMM 544

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LABORATORY LOCATION/ CENTRAL OFFICE:	LABORATORY MANAGEMENT DEPARTMENT UNIVERSITI TEKNOLOGI PETRONAS BLOCK 20.01.09 , 32610, PERAK MALAYSIA
	
ACCREDITED SINCE :	08 MAY 2025
FIELD(S) OF TESTING:	MECHANICAL CHEMICAL MECHANICAL (& PHYSICAL)

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:	LABORATORY MANAGEMENT DEPARTMENT UNIVERSITI TEKNOLOGI PETRONAS BLOCK 20.01.09 , 32610, Perak
FIELD(S) OF TESTING :	MECHANICAL, CHEMICAL, MECHANICAL

SCOPE OF TESTING : MECHANICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Metallic Materials	Tensile Test (Range: 100 kN Max.) a) Yield Strength b) Yield Point Elongation c) Tensile Strength	ASTM E8/E8M-22
	Rockwell Hardness Test (HRC)	ASTM E18-22
Plastics And Related Products	Tensile Test (Range: 5 kN Max.) a) Yield Strength b) Yield Point Elongation c) Tensile Strength	ASTM D638-22

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Rubber And Related Products	Compression Test	ASTM D575-91(2018)
Plastic And Electrical Insulating Materials	Flexural Test	ASTM D790-17

SCOPE OF TESTING : MECHANICAL (& PHYSICAL)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Metallic Materials	Tensile Test (Range: 100 kN Max.) a) Yield Strength b) Yield Point Elongation c) Tensile Strength	ASTM E8/E8M-22
	Rockwell Hardness Test (HRC)	ASTM E18-22
Plastics And Related Products	Tensile Test (Range: 5 kN Max.) a) Yield Strength b) Yield Point Elongation c) Tensile Strength	ASTM D638-22
Rubber And Related Products	Compression Test	ASTM D575-91(2018)
Plastic And Electrical Insulating Materials	Flexural Test	ASTM D790-17

SCOPE OF TESTING : CHEMICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Water (ground Water, Processed Water, Surface Water, Potable/ Drinking Water, And Domestic)	pH test	APHA 4500 H+B (24th Edition 2023)
	Total suspended solids	APHA 2540 D (24th Edition 2023)
	Turbidity Test	APHA 2130 B (24th Edition 2023)
Water (potable Water / Drinking Water)	Determination of Metals: Silver (Ag), Aluminium (Al), Arsenic (As), Boron (B), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Iron (Fe), Manganese (Mn), Nickel (Ni), Lead (Pb), Selenium (Se), Zinc (Zn)	APHA 3120 B & APHA 3030 F

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Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Natural Gas	Determination of Gas Composition: Carbon Dioxide, Nitrogen, Methane, Ethane, Propane, n-Butane, i-Butane, n-Pentane, i-Pentane, n-Hexane, Hydrogen, Argon	ASTM D 1945-14 (2019)

SCOPE OF TESTING : MECHANICAL

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Catalysts And Catalyst Carriers	Surface Area (Mesopores:2nm to 50nm) / $1\text{m}^2\text{g}^{-1}$ to $3000\text{m}^2\text{g}^{-1}$	ASTM D3663-20

SCOPE OF TESTING : MECHANICAL (& PHYSICAL)

Material / Product Tested	Type Of Test / Properties Measured / Range Of Measurement	Standard Test Methods / Equipment / Techniques
Catalysts And Catalyst Carriers	Surface Area (Mesopores:2nm to 50nm) / $1\text{m}^2\text{g}^{-1}$ to $3000\text{m}^2\text{g}^{-1}$	ASTM D3663-20