

	<p style="text-align: center;">ACCREDITATION DOCUMENT</p>	<p>F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 035</p>
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Accreditation No: LAB 035

Awarded to

Pakistan Institute of Technology for Minerals and Advanced Engineering Materials (PITMAEM), Pakistan Council of Scientific & Industrial Research (PC SIR) Labs. Complex. Lahore 54600, Pakistan.

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **24-08-2006** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2017**.

The accreditation requires regular surveillance, and is valid until **16-09-2025**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

Date

SD
Director General

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Testing Laboratory.

Accreditation scope of Pakistan Institute of Technology for Minerals and Advanced Engineering Materials (PITMAEM), Pakistan Council of Scientific & Industrial Research (PCSIR) Laboratories Complex, Lahore 54600, Pakistan.

Permanent laboratory premises ☒

Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
1. Metallography Laboratory.			
Metallic materials	Material Characterization	Test Method for Preparation of Metallographic Specimens	ASTM E 3-23
		Test Method for Micro-etching Metals and Alloys	ASTM E 407-23
			SASO ISO 22991-19
			SASO GSO ISO 17639:2008
		Test Method for Macro-etching Metals and Alloys	ASTM E 340-23
			SASO ISO 22991-19
			SASO GSO ISO 17639:2008
		Test Method for Determining Average Grain Size	ASTM E 112-24
			SASO ISO 22991-19
			SASO ISO 643:2022
		Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section	ASTM B 487-24
		Test Method for Evaluating the Microstructure of Graphite	ASTM A 247-24

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Metallic Materials	2. Optical Emission Spectrometer Laboratory		
	Material Characterization	Optical Emission Vacuum Spectrometric Analysis of Carbon and Low Alloy Steel	ASTM E 415-21 SASO ISO 22991:2019 SASO ISO 4978:2018
		Optical Emission Vacuum Spectrometric Analysis of Stainless Steel by Point to Plane Excitation Technique	ASTM E 1086-22
		Analysis of Manganese Steel using Atomic Emission Spectrometry	ASTM E 2209-22
		Analysis of Cast Iron using Optical Emission Spectrometry	ASTM E 1999-23
		Optical Emission Spectrometric Analysis of Aluminum and Aluminum Alloys by the Argon Atmosphere Point to Plane, Unipolar Self-Initiating Capacitor Discharge	ASTM E 1251-17a
		Practice for Sampling Steel and Iron for Determination of Chemical Composition	ASTM E 1806-18
	Chemical Testing	Standard Test Methods for Chemical Analysis of Tool Steels and Other Similar Medium and High Alloy Steels and Standard Guide for Metal Identification and grade verification.	ASTM E 352-18 ASTM E 1476-04(2022)
		Determination of Carbon in Steel and Iron by combustion and Inert Gas fusion technique	ASTM E1019-24

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Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
3. Mechanical Laboratory			
Metallic Materials	Mechanical Testing	Test Method for Tension testing of deformed steel bars	ASTM A 370-24
		Test Method for Rockwell hardness of Metallic Materials	ASTM E 18-24
		Notched Bar (Charpy) Impact Testing of Metallic Materials	ASTM E 23-24
		Standard Test Method for Tension Testing of parent metal in the geometric longitudinal direction of cylinder	SASO GSO ISO 22991 :2019 SASO GSO ISO 5178 :2019
		Standard Test Method for Tension Testing of parent metal in perpendicular to the circumferential weld	SASO GSO ISO 22991 :2019 SASO GSO ISO 4136 :2015
Ceramic Materials		Determination of Modulus of Rupture of Marble	ASTM C 99-24
4. Cylinder Testing Laboratory			
Liquid Petroleum Gas (LPG) Composite Cylinder	Mechanical Testing	Pressure Cyclic Test	EVS –EN 14427:2014
		Burst Test	
		Torque Test	
		Leak Test	ISO 11119-3:2020 (E)
		Pressure Proof Test	
		Drop Test	
		Flawed Cylinder Test	
		Exposure to Elevated Temperature at Test Pressure	EVS-EN 14427:2014

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LPG Metallic Cylinders		Burst Test Under Hydraulic Pressure	SASO-GSO-ISO 22991 :2019
		Pressure Test	
		Pressure Cycling Test	

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