

Name: Testing Center of Metal Research Institute, Chinese Academy of Sciences

Address: No. 72, Wenhua Road, Shenhe District, Shenyang, Liaoning, China

Registration No. CNAS L4975

Accreditation Criteria: ISO/IEC 17025:2017 and relevant requirements of CNAS

Effective Date: 2024-10-17 Expiry Date: 2029-05-25

SCHEDULE 3 ACCREDITED TESTING SCOPE

№	Test Object	Item/Parameter		Standard or Method	Note	Effective Date
		№	Item/ Parameter			
Metal materials and products						
1	Metal materials and products	1	Macro examination of metal materials	Test method for macrostructure and defect of steels by etching GB/T 226-2015		2023-06-20
				Standard diagrams for macrostructure and defect of structural steels GB/T 1979-2001		2023-06-20
				Inspection of non-metallic inclusions of steel - Etching test method of tower samples GB/T 15711-2018		2023-06-20
				Steel examination by sulphur print (Baumann method) GB/T 4236-2016		2023-06-20
				Inspection method for structure of wrought aluminium and aluminium alloy products-Part 2: Inspection method for macrostructure GB/T 3246.2-2012		2023-06-20
				Inspection method for macrostructure of wrought magnesium alloy products GB/T 4297-2004		2023-06-20
				Microstructure and macrostructure examination for α - β titanium alloys GB/T 5168-2020		2024-01-19



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№	Test Object	Item/Parameter		Standard or Method	Note	Effective Date	
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				Standard Method of Macroetch Testing Steel Bars, Billets, Blooms, and Forgings ASTM E381-22		2023-06-20	
				Standard Practice for Macroetch Testing of Consumable Electrode Remelted Steel Bars and Billets ASTM A604/A604M-07 (2022)		2023-06-20	
				Standard Practice for Macroetching Metals and Alloys ASTM E340-23		2024-05-21	
		2	Grain size		Determination estimating the average grain size of metal GB/T 6394-2017		2023-06-20
					Standard Test Methods for Determining Average Grain Size ASTM E112-24		2024-10-17
		3	Inclusions		Steel-Determination of content of nonmetallic inclusions-Micrographic method using standards diagrams GB/T 10561-2023		2024-01-19
					Standard Test Methods for Determining the Inclusion Content of Steel ASTM E45-18a (2023)		2024-05-21
		4	Depth of Surface Layer		Determination of nitrided case depth and metallographic microstructure examination for steel and iron parts GB/T 11354-2005		2023-06-20
					Determination of the depth of decarburization of steels GB/T 224-2019	No testing by chemical method	2023-06-20
					Metallic and oxide coatings - Measurement of coating inckness - Microscopical method GB/T 6462-2005		2023-06-20
					Test method of titanium and titanium alloy surface contamination layer GB/T 23603-2009		2023-06-20
		5	Area content		Micrographic method for determining area content of the α -phases in stainless steels GB/T 13305-2008		2023-06-20



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		6	Carbide	Eutectic carbide of steel - Micrographic method using standard diagrams GB/T 14979-94		2023-06-20	
				High-carbon chromium GB/T 18254-2016 6.11		2023-06-20	
		7	Micro examination of metal materials		Inspection methods of microstructure for metals GB/T 13298-2015		2023-06-20
					Standard Guide for Preparation of Metallographic Specimens ASTM E3-11 (2017)		2023-06-20
					Determination of free cementite,pearlite and Widmanstatten structure in steel GB/T 13299-2022		2023-06-20
					Inspection method for struture of wrought aluminium and aluminium alloy products - Part 1: Inspection method for microstructure GB/T 3246.1-2024		2024-10-17
					Inspection method for microstructure of wrought magnesium alloy GB/T 4296-2022		2023-06-20
					Test methods for grain sizes,primary dendrite spacing and microshrinkage of superalloy castings GB/T 14999.7-2010		2023-06-20
					Metallographic test for gray cast iron GB/T 7216-2023		2024-01-19
					Metallographic test for spheroidal graphite cast iron GB/T 9441-2021 6.10		2023-06-20
		8	Banded structure of steel		Determination of banded structure of steel — Part 1: Micrographic method using standards diagrams GB/T 34474.1-2017		2023-06-20
					Determination of banded structure of steel — Part 2: Quantitative method GB/T 34474.2-2018		2023-06-20
		9	Porosity		Hardmetals — Metallographic determination of porosity and uncombined carbon GB/T 3489-2015		2023-06-20



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		10	Vickers hardness	Metallic materials- Vickers hardness test- Part 1:Test method GB/T 4340.1-2009	Accrideted only for HV0.1~HV30	2024-01-19
				Standard Test Methods for Vickers Hardness and Knoop Hardness of Metallic Materials ASTM E92-23	Accrideted only for HV2~HV30	2024-01-19
		11	Creep test	Metallic materials.Uniaxial creep testing method in tension GB/T 2039-2012	Accredited only 300°C~1200°C	2023-06-20
				Metal creep testing method in tension at elevated temperature HB 5151-96	Accredited only 300°C~1200°C	2023-06-20
				Standard Test Methods for Conducting Creep, Creep-Rupture, and Stress-Rupture Tests of Metallic Materials ASTM E139-11(2018)	Accredited only 300°C~1200°C	2023-06-20
		12	Stress-rupture test in tension	Metal stress-rupture test in tension at elevated temperature HB 5150-96	Accredited only 300°C~1200°C	2023-06-20
				Standard Test Methods for Conducting Time-for-Rupture Notch Tension Tests of Materials ASTM E292-18	Accredited only 300°C~1200°C	2023-06-20
		13	Surface roughness Ra	Geometrical product specifications (GPS). Surface texture:Profile method. Rules and procedures for the assessment of surface	Surface roughness	2023-06-20



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				texture GB/T 10610-2009			
		14	Residual stress	Standard Test Method for Determining Residual Stresses by the Hole-Drilling Strain-Gage Method ASTM E837-20		2023-06-20	
				Metallic materials-Residual stress determination-Indentation strain-gage method GB/T 24179-2023		2024-01-19	
				Metallic material-Determination of residual stress - Hole drilling strain-gauge method GB/T 31310-2014		2023-06-20	
				Metallic materials-Determination of residual stress - Sectioning relaxation strain-gage method GB/T 31218-2014		2023-06-20	
		15	Ultrasonic testing	Nondestructive testing of pressure equipments—Part 3: Ultrasonic testing NB/T 47013.3-20123	Special equipment is not tested	2024-06-26	
					Automated full peripheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections GB/T 5777-2019		2023-06-20
					Seamless steel pipe and tubing methods for ultrasonic testing GB/T 5777-2008	Special customer requirements only	2023-06-20
					Seamless steel pipe and tubing—Methods for ultrasonic testing GB/T 5777-1996	Special customer requirements only	2023-06-20
					Method for ultrasonic testing of forged and rolled steel bars GB/T 4162-2022		2023-06-20
		16	Eddy current testing	Automated eddy current testing of seamless and welded (except submerged arc-welded) steel tubes for detection of imperfections GB/T 7735-2016		2023-06-20	



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		17	Magnetic particle testing	Nondestructive testing of pressure equipments— Part 4: Magnetic particle testing NB/T 47013.4-2015	Special equipment is not tested	2023-06-20
				Non-destructive testing—Magnetic particle testing—Part 1:General principles GB/T 15822.1-2005		2023-06-20
		18	Penetrate testing	Nondestructive testing of pressure equipments— Part 5: Penetrant testing NB/T 47013.5-2015	Special equipment is not tested	2023-06-20
				Non-destructive testing—Test method for penetrant testing JB/T 9218-2015		2023-06-20



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