



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

Lucideon M+P
481 Garlington Road, Suite L
Greenville, SC 29615

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the field of

TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

L2287.01

Certificate Number



ANAB Approval

Certificate Valid Through: 04/21/2020
Version No. 003 Issued: 04/23/2019



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Lucideon M+P
481 Garlington Road, Suite L
Greenville, SC 29615
Joe Beagle
864 297 4417

TESTING

Valid to: **April 21, 2020**

Certificate Number: **L2287.01**

Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Hardness, Rockwell HRA, HRC, HRBW	ASTM E18, MCH1006	Metals, Alloys	Wilson Rockwell hardness tester Model 4TT BB in conjunction w/calibrated NIST-traceable hardness blocks
Microindentation Hardness Knoop, Vickers	ASTM E384, MLG1008		Mitutoyo Hardness Tester Model HM-101 in conjunction w/calibrated NIST-traceable hardness blocks
Effective Case Depth Knoop, Vickers	SAE J423, MLG1016		Mitutoyo Hardness Tester Model HM-101 in conjunction w/calibrated NIST-traceable hardness blocks
Macroetch / Evaluation	ASTM E340, ASTM 381 MLG1025		Carl Zeiss SMT SEM (Model LEO 1455 VPSE), Bruker EDS (Model 5010), and various macroetchants



Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Metallographic Preparation	ASTM E407 ASTM E3 MLG1003 MLG1049	Metals, Alloys	Struers wet saw / Model Magnatom Struers Abraplan grinder / Model 1A Sowers Dia-met saw / Model 42AR Brown & Sharpe surface grinder / Model Micromaster 824 Buehler ISOMET Low-Speed Saw / Model 11-1280-170 Various microetchants (et al)
Microstructural Evaluation	ASTM E407 ASTM E3 SAEJ423 MLG1016		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Grain Size Evaluation	ASTM E112 ASTM E930 ASTM E1181 MLG1017		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Intergranular Attack/Intergranular Oxidation (IGA/IGO)	P3DAG1 P29TF73 MLG1029		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)



Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Recrystallized (Rx) Grain Evaluation	P3DAG1 P29TF73 MLG1054 MLG1065 MLG1066 MLG1063	Metals, Alloys	Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Crack Evaluation	P3DAG1 P29TF73 MLG1054		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Recast Evaluation	P3DAG1 P29TF73 MLG1054 MLG1065 MLG1066 MLG1062		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Copper Contamination	P3DAG1 MLG1067		Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)



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Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Weld Evaluation	AWS D17.1 MLG1067	Metals, Alloys	Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)
Failure Analysis	ASM Metal Handbook, 9th Ed., Vol 11	Metals, Alloys	Leitz Metallographic Microscope / Model DM2500M (et al) in conjunction w/calibrated Clemex digital image analysis software / Model Vison PE plus Clemex, Leica + Sony digital cameras / Model DFW-SX 900 (et al)

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
SEM/Electron Microprobe	MIC 1000	Metals, Alloys, Coatings	BRUKER-AXS Energy Dispersive Spectrometer / Model XFlash 4010 in conjunction w/ BRUKER-AXS Electron Imaging System (Microprobe) / Model ARL SEMQ
X-Ray Fluorescence	GCH1001	Metals, Alloys, Ceramics, Coatings, Minerals	Oxford X-ray Fluorescence Spectrometer / Model ED2000AG
SEM/EDS/EBSD Spectroscopy	ASTM E986 ASTM E1508 SEM1001-GV	Metals, Alloys	Carl Zeiss SMT SEM (Model LEO 1455 VPSE), Bruker EDS (Model 5010)

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2287.01.
2. This laboratory offers commercial testing service.


 Vice President