



Laboratory Accreditation Bureau

Certificate of Accreditation

ISO/IEC 17025:2005

Certificate Number L2128

Secat, Inc
Coldstream Research Center
1505 Bull Lea Road
Lexington, KY 40511

has been accredited for technical competence in the major fields and related disciplines on the approved scope of accreditation. They have met the requirements set forth in L-A-B's policies and procedures, and all requirements of ISO/IEC 17025:2005 "General Requirements for the competence of Testing and Calibration Laboratories."

Accreditation effective November 15, 2008 and valid through November 15, 2011

**R. Douglas Leonard, Jr., Managing Director
Laboratory Accreditation Bureau**

Scope of Accreditation For Secat, Inc.

1505 Bull Lea Road
Coldstream Research Campus
Lexington, KY 40511
Shridas Ningileri
859-514-4989

In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **Secat, Inc.** to perform the following **Tests**:

Accreditation granted through: **November 15, 2011**

Testing

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Yield Strength, Ultimate Tensile Strength, Elongation	To 20 000 lbs-Uniaxial	ASTM E8 ASTM B557 ASTM A370 AWS B2.1 ASTM E345	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Tensile strain hardening exponent (n)	To 20 000 lbs-Uniaxial	ASTM E646	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Plastic strain ratio (r) for sheet metal	To 20 000 lbs-Uniaxial	ASTM E517	Requires Sheet Geometry	
Poisson's ratio	To 20 000 lbs-Uniaxial	ASTM E132	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	Room Temperature
Young's Modulus	To 20 000 lbs-Uniaxial	ASTM E111	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	



Technology	Range, when necessary	Methods Used	Product Types	Remarks
Microhardness	Knoop, Vickers	ASTM E384	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Rockwell	HRC HRB W	ASTM A370 ASTM E18	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Superficial Rockwell	HR 30N HR 30T W	ASTM A370 ASTM E18	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Optical Emission Spectroscopy		ASTM E1251	Al based alloys in chill cast disk, casting, foil, sheet, plate, extrusion or some other wrought form or shape	Aluminum Aluminum Alloys
Electrical Conductivity	Aluminum Aluminum Alloys	ASTM E1004	Al based alloys	Electromagnetic Method
Forming Limit Curves	Up to 4 mm for Al Up to 2 mm for Steel	ASTM E2218	Sheet Materials	
Failure Analysis		WI-MC-27	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	
Scanning Electron Microscopy (SEM)	Max sample size 5 in x 5 in High Vacuum Low Vacuum	WI-MC-1	Sheet, Plate, Forging, Extrusions, Billets, Castings, Wires, Foil, Tubes, Welds, Formed Components, P/M Components, Metal Matrix, Composites	Back Scattered Secondary Electrons EDS

Notes:

- 1) This laboratory offers commercial testing service.

Approved by:  Date: December 4, 2008

R. Douglas Leonard
Chief Technical Officer

Re-Issued: 12/4/08