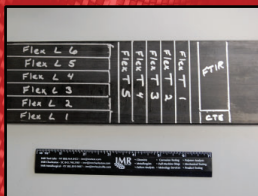


Mechanical Testing

Adhesion (Peel) Testing
Bend Testing (3 Point, 4 Point)
Bond Strength Testing
Charpy Impact Testing (-320°F to 450°F)
Coefficient of Thermal Expansion by TMA
Composite Testing (FRC, CMC)
Compressive Properties of Nonmetallics
Creep & Stress Rupture
Fatigue Testing (Axial, Low Cycle, High Cycle, Rotating Beam, Coating Shear)
High Temperature Fatigue Testing up to 1800°F
Filled Hole Tension/Compression
Flexural Properties (Modulus, Strength, Stress-Strain Response)
Fracture Mechanics
Hardness (Rockwell, Brinell)
Heat Aging
Heat Deflection by TMA
Hydrogen Embrittlement (Static Load)
In-Plane Shear Response
Indentation Toughness
Interlaminar Shear
Impact Testing (Charpy, Gardner)
Lap Shear Testing
Open Hole Tension/Compression
Peel Properties (Climbing Drum, Floating Roller)
Residual Strength of Composites After Impact
Resin Penetration
Sealant & Adhesive Testing
Shear Properties
Slow Strain Rate
Static Pin Bearing Strength
Taber Abrasion/Wear Resistance
Tensile Testing - Metals (to 2000°F)
Tensile Testing - Nonmetallics (-240°F to 660°F)
- Flatwise, Cruciform, Hoop, Standard
Torsional/Axial Fatigue (200 lb)
Welder/Weld Procedure Qualification



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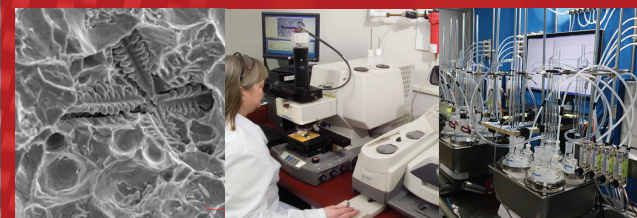
Nadcap Accreditation: Ithaca (MTL, NMTL), Louisville (MTL), Portland (MTL), Singapore (MTL), Suzhou (MTL)
A2LA Accreditation: Ithaca (1140.01 / 1140.02), Louisville (1140.03/1140.04), Portland (1140.07), Singapore (1140.10), Suzhou (1140.09)

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Aggressive Machining Evaluations

Braze Analysis

Case Depth

Certified Weld

Inspections

Coatings Analysis

Decarburization

Failure Analysis

Fluorescent

Impregnation of Porous

Coatings

Fractography/Fracture Mechanics

Grain Size

Image Analysis

Inclusion Rating

Intergranular Attack

Intergranular Oxidation

Macroetch/Microetch

Metallography/
Materialography

Microhardness (Knoop,
Vickers, MacroVickers)

Microstructure

Orientation in Microstructure

Particle Analysis (Distribution, ID, Size)

Phase Volume Determination

Plating & Coating Analysis

Plating Thickness

Porosity of Metals, Ceramics & Composites

Prior Austenitic Grain Boundary Determination

Replication (E1351)

Quantitative Image Analysis

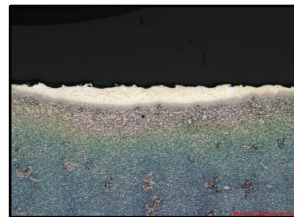
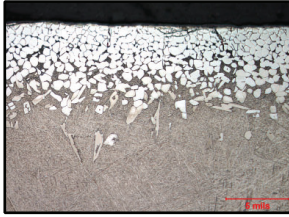
Root Cause Evaluation

SEM Analysis

Thermal Spray Coating Evaluations

Titanium Beta Transus Determination

Welder Qualification



Chemical Analysis



Alloy Chemistry

Ash Content

C, H, O, N, S

Chemical Resistance

Cleanliness Testing

Coating Weight

Conductivity/Resistivity
(D1125)

Contaminant/Corrodent Analysis

Contaminant/Corrodent Identification

Density

DSC Analysis (Melting Point, Glass Transition,

% Crystallinity, Degree of Cure, Purity)

Dynamic Mechanical Analyzer (DMA) Testing

Filler Content Analysis

FTIR Analysis

Halogen Analysis (IC)

Heavy Metal Impurities

Hexavalent Chromium

ICP-AES Analysis

ICP-MS Trace Element

Analysis

Ion Chromatography (IC)

Material Certification

Mercury Analysis

Metallic Material Verification/ID

OES Analysis

Particle Size Analysis

Percent Crystallinity

Phase Identification

Positive Material ID (On-site PMI available)

Powder Diffraction

Precious Metal Assay

SEM/EDX

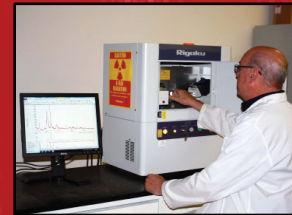
Sieve Analysis

Trace Element Analysis

Unknown Material ID

X-Ray Diffraction (XRD)

XRF Chemistry



Salt Spray and Accelerated Weathering



Cyclic Corrosion

Electrical Resistivity Testing

Passivation

QUV Exposure

Salt Spray Testing

SO₂ and SO₂/CO₂ Exposure

Taber Abrasion / Wear

Resistance

Temperature & Humidity Testing

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Corrosion Cracking Testing of Metals (SCC) and Plastics (ESC)

Corrosion Failure Analysis

Determining Corrosion Rates of Metals and Corrosiveness of Fluids Using Electrochemical and Immersion Test Techniques

Dezincification Testing of Brasses

Electrochemical Corrosion Simulation

Evaluation of Duplex Stainless Steels

Formicary (Ant's Nest) Corrosion of Copper Tubing

General and Pitting Corrosion Testing

Heat & Fluid Aging

Passivation Testing of Medical Components

Residual and Assembly Stress Testing of Copper Alloys

Sensitization Testing of Austenitic and Ferritic Stainless Steels