Coatings Evaluations at IMR Singapore

IMR Test Labs - Singapore is a GE S-400 approved coatings laboratory. We have GE CCL certified coatings technicians who can provide approved coatings evaluations and reports that satisfy GE requirements.

IMR Singapore carries GE S-400 Code AJ approval on our cert T9325, which includes the following coatings: F50TF13 CL-A/B50TF72 CL-A, F50TF15 CLA, F50TF18 CLB, F50TF22 CLA, F50TF25 CLA, F50TF45 CLB, F50TF50 CLB, F50TF69 CLB, F50TF71 CLA & CLC, F50TF75 CLB, F50TF102 CLA

Contact us today at sales@imrsingapore.com

Not just data, knowledge

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Specialty Services

• Aggressive Machining Evaluations
• Analysis to support Additive Manufacturing
• Coatings Evaluations
• Metallography/Materialography
• Preparation of speciality materials including: Inconel 625, Haynes 25, Haynes 188, L605, stellites, ceramics, fiber-reinforced composites and more.
• 2 and 3 part Chemical Etching
• AC Electrolytic Etching
• Non-routine DC Electrolytic Etching
• Vibratory Polishing
• Thermal Spray Evaluation Training
**Metallurgical & Failure Analysis**
- Aggressive Machining Evaluations
- Alpha Case
- Case Depth
- Decarburization
- Effective Case
- Depth
- Grain Size
- Image Analysis
- Inclusion Content
- Intergranular Attack
- Macro-etching/Micro-etching
- Metallography
- Microhardness (Knoop, Vickers)
- Microstructure
- Particle Analysis
- Plating & Coating Analysis
- Porosity
- Root Cause Analysis
- Specialty Material Preparation
- Thermal Spray Coating Analysis
- Weld, Braze & Joining Evaluations

**Polymers, Composites & Contaminants**
- Additive Analysis to Trace Level
- Bond Strength
- Chemical Exposure Testing
- Chemical Resistance
- Coefficient of Friction
- Compression Set
- Compressive Properties
- Contaminant Identification
- Density & Specific Gravity
- DSC Analysis: Melting Point, Glass Transition, % Crystallinity
- Dynamic Mechanical Analyzer (DMA) Testing
- Extractables
- Failure Analysis
- Fatigue Testing
- Flammability
- Flexural Properties
- Fluid Exposure
- FTIR Analysis
- GC/MS: Additives
- Hardness: Rockwell, Durometer, Barcol
- Heat Aging
- Impact Strength
- Lap Shear Testing
- Material Identification
- Melt Flow Rate/Index
- Oil Content
- SEFA Testing
- SEM/EDS Analysis: Fillers
- Tensile Testing: Flatwise, Cruciform, Hoop, Standard, -240F to 660F
- TGA: Polymer, Glass and Ash Content
- TMA: Glass Transition, Coefficient of Thermal Expansion, Heat Deflection
- Viscosity
- XRD: Phase Identification
- % Crystallinity
- Crystal Structure
- Material Confirmation

**Accelerated Weathering & Corrosion**
- Cyclic Corrosion
- Electrical Resistivity
- Monthly Panel Testing
- QUV Exposure
- Salt Spray Testing
- SO₂ and SO₂/CO₂ Exposure
- Taber Abrasion/Wear Resistance
- Temperature & Humidity Testing

**Chemical Analysis**
- Alloy Identification/Verification
- Cleanliness
- Contaminant Analysis
- ICP-AES Analysis
- ICP-MS Analysis for Trace Elements
- OES Analysis
- Particle Size Analysis
- PMI (Positive Material Identification)
- SEM/EDS
- XRF Analysis
- XRD Analysis

**Mechanical Testing**
- Coating Adhesion/Bond Strength
- Creep/Stress Rupture
- Erosion Testing of Coatings
- Fatigue Testing
- Flexural Fracture Mechanics
- Hardness (Brinell, Rockwell)
- High Cycle Fatigue
- Hydrogen Embrittlement
- Impact Testing
- Low Cycle Fatigue
- Rotating Beam Fatigue
- Tensile, Yield, Elongation
- Weld Qualification