Trace Analysis

IMR offers material identification and verification services as well as analysis of trace constituents, such as:

- Polymer Additives
- Plasticizers
- Leachable Compounds
- Extractable Compounds
- Semi-Volatile Compounds
- Contaminants
- Corrodents

IMR's experienced nonmetallics staff has the know-how and equipment to assist you.

- Introduction Techniques
  - Pyrolysis
  - Thermal Desorption
- FTIR
- Micro-FTIR
- DMA
- DSC
- TGA
- TMA
- Ion Chromatography
- SEM
- SEM-EDX

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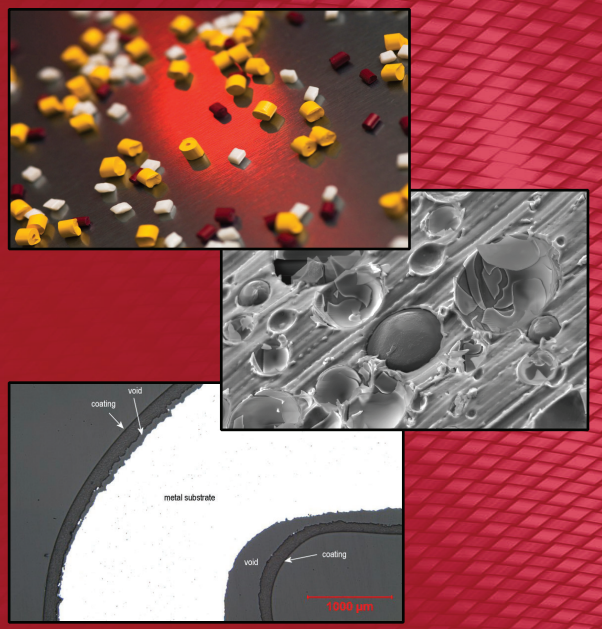
Nadcap Accreditation: Ithaca (MTL, NMTL), Louisville (MTL), Portland (MTL), Singapore (MTL), Suzhou (MTL)
A2LA Accreditation: Ithaca (1140.01 / 1140.02), Louisville (1140.03/1140.04), Portland (1140.07), Singapore (1140.10), Suzhou (1140.09)

CURTISS-WRIGHT
IMR Test Labs

Polymer, Plastics, and Non-metallic Materials Testing Services



www.imrtest.com

Failure Analysis

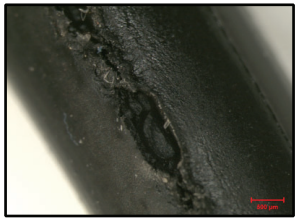
We are a full-service lab, capable of performing a complete failure analysis on your plastic materials. From macroscopic evaluations, fractography and material identification, we have the tools and experience to handle your toughest failures and production problems.

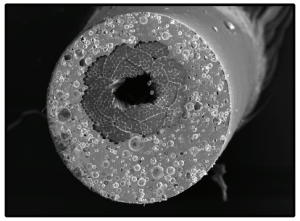
In addition, IMR is one of the few labs possessing the capability to analyze both metals and plastics at one time.

We can provide insight into:

- Failure Mechanism
- Root Cause
- Applied Stresses
- Fracture Origin
- Trace Contaminants
- and much more

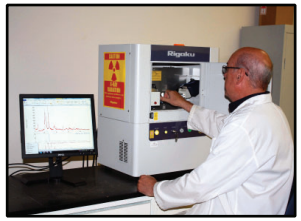
Let our experts handle your toughest plastics failures!





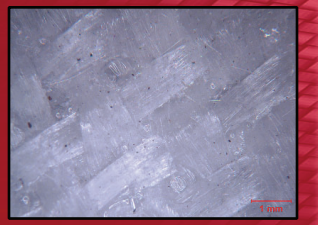
XRD Analysis

- Identification of Unknown Powders
- Analysis of Corrosion Products
- Phase Identification
- Crystal Structure
- Reverse Engineering
- Competitive Analysis
- Material Confirmation



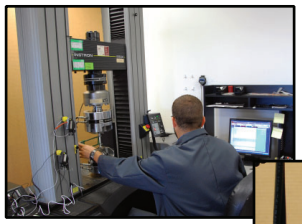
Material Characterization

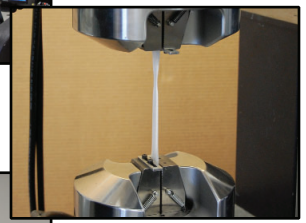
- Additive Analysis to Trace Level
- Bond Strength
- Chemical Exposure Testing
- Coefficient of Friction
- Compression Set
- Compressive Properties (-320°F to 660°F)
- Density & Specific Gravity
- DSC Analysis:
  - Melting Point
  - Glass Transition
  - % Crystallinity
- Dynamic Mechanical Analysis (DMA)
- Extractables
- Fatigue Testing (ambient temperature)
- Flammability
- Flexural Properties (-320°F to 660°F)
- FTIR Analysis
- Hardness (Rockwell, Durometer, Barcol)
- Heat Aging
- Impact Strength
- Lap Shear Testing
- Material Identification
- Melt Flow Rate/Index
- Oil Content
- SEM/EDS Analysis: Fillers
- Tensile Properties (-40°F to 660°F)
- TGA Analysis: Polymer Glass and Ash Content
- TMA: Glass Transition, Coefficient of Thermal Expansion, Heat Deflection
- Viscosity

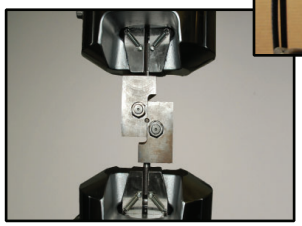


Paints & Coatings

- Coating Shear Fatigue
- Coating Thickness
- Dime Scrape
- Flexibility
- Impact Resistance
- Material Identification (Base Polymer)
- Material Properties of Liquid Paints and Coatings
- MIL-STD-801 Section 504 Testing (Contamination by Fluids)
- Pencil Hardness
- Solvent Resistance
- Specular Gloss (20° and 60°)
- Stain Resistance







Additional Services

- Failure Analysis
- Contaminant Analysis to Trace Level
- Phthalate Testing
- Oil Analysis
- Particle Characterization