

Failure Analysis Services

- Fracture Evaluation
- Failure Mode Determination
- Fatigue
- Fractography
- Overload
- Ductile/Brittle Failures
- Chemical Attack
- Stress Corrosion Cracking
- Corrosion Simulation and Failure
- Contamination and Corrosion Analysis
- Particle Analysis/Identification
- Filter Residue Analysis
- Process/Manufacturing Problem Analysis
- Reverse Engineering of Components
- Material Selection/Processing/Design Recommendations
- Field Failure Investigations
- Engineering/Process Problem Solving and Consulting
- Hosted Inspections
- Weld Analysis
- Litigation Related Failure Analysis
- Expert Services
- Consulting
- Third Party Inspections/Examinations



Image showing the complete failure of an O-Ring and surface damage extending around the circumference.

Not just data, *knowledge*

IMR Test Labs

131 Woodsedge Drive
Lansing, NY 14882 USA
1-607-533-7000
sales@imrtest.com

IMR Metallurgical Services - Louisville

4510 Robards Lane
Louisville, KY 40218 USA
1-502-810-9007
sales@imrlouisville.com

IMR KHA - Portland

5687-A SE International Way
Portland, OR 97222 USA
1-503-653-2904
sales@imrportland.com

IMR Test Labs - Singapore

30 Loyang Way #03-16
Singapore 508769
+65 6592 5325
sales@imrsingapore.com
www.imrsingapore.sg

Coming - Summer 2012

IMR Test Labs - Suzhou

Jiangpu Road 75, Shengpu Town
Suzhou Industrial Park
Jiangsu, China 215126
sales@imrsuzhou.com
www.imrsuzhou.com

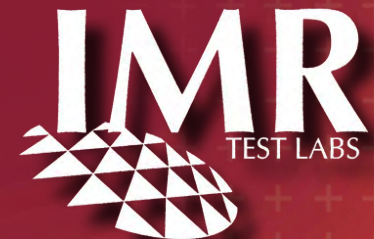
www.imrtest.com

©2011 IMR Test Labs

Failure Analysis & Hosted Inspection Services



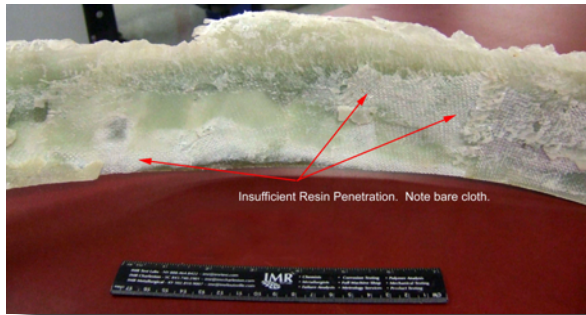
Not just data, *knowledge*



Failure Analysis

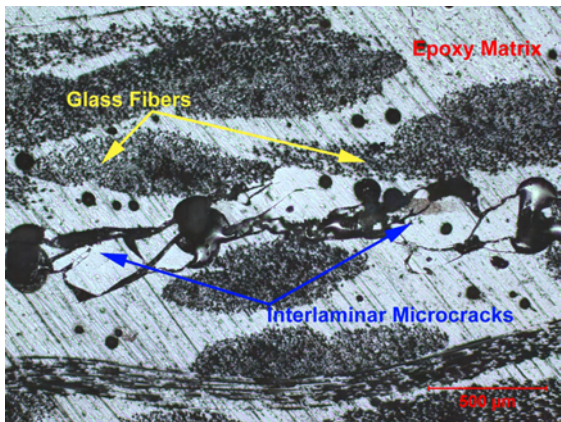
Our domestic IMR facilities offer comprehensive failure analysis services for metals, polymers and composites. We combine materials and process knowledge with analytical expertise to solve complicated problems.

Immediate response and expedited investigations are provided to clients in all major industries. We provide understandable and precise technical reports.



Photograph of failed tank demonstrating poor resin penetration

Photomicrograph showing interlaminar cracks of a failed composite water tank.



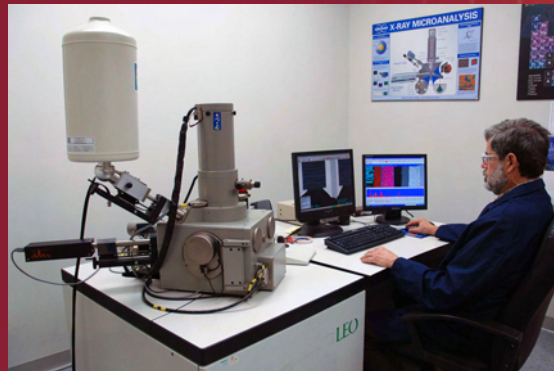
Hosting of Investigations & Inspections

Our laboratories have a long history of supporting and hosting formal failure analyses and multiple party investigations. Hosted inspections can include many engineers, forensic investigators, claims adjusters and attorneys.

We have supported litigation and insurance claim investigations as an independent third party lab, or in technical support of engineering companies, law firms or insurance companies.

IMR's labs have been approved and appointed by courts as a referee analysis lab. We can prepare professional inspection protocols. All three labs are accredited to perform standard, accepted test methods - No Junk Science!

With the necessary capacity and equipment, we offer complete and efficient inspection hosting services. We have machine shops to section and prepare specimens, mechanical testing equipment, chemical analysis instrumentation and optical and electron microscopes.



Senior Research Scientist & Microanalysis Specialist Ed Brothers, Ph.D., performing an analysis of a failed solder joint on Ithaca's LEO SEM.

Failure Analysis Applications

- Manufacturing Troubleshooting
- R&D Support
- Litigation Investigations
- Insurance Claim Support
- Quality Control
- Warranty Return Issues



Catastrophic Rupture of a Waterwall Tube

Litigation Support

Litigation and insurance claims need support from competent materials testing experts to reach the appropriate conclusions. Clients rely on IMR to provide the following professional services.

- Trial Expert Witness Testimony
- Technical Disposition
- Legal Consultation
- Expert Report Preparation or Review
- Test Witness Services

IMR has a reputation for comprehensive and unbiased perspective on complex materials questions. Our staff includes licensed Professional Engineers (PE's), Ph.D.'s, and other analysts with the necessary education and industry experience to provide confident technical support.