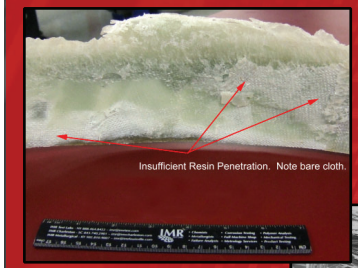
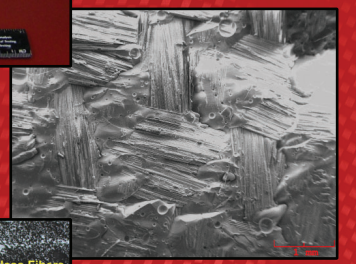
Composite Failure Analysis

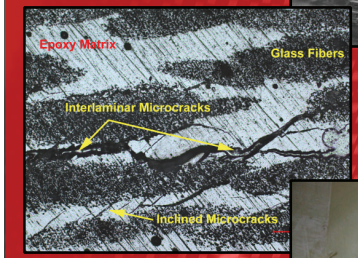
Our Failure Analysis capabilities include the ability to analyze metals, as well as composites and polymers. This puts us in a unique position to handle all aspects of your analysis.

Our expertise includes evaluation of field failures and returns, manufacturing process problems, evaluation of life cycle test failures, defect detection, contamination analysis, corrosion and environmental effects, and product design review.

Failure analysis reports provide a clear picture of the root cause, and include recommendations to avoid future failures - from component design, through material selection and processing. Our experts are there to get you the right answers, on time.







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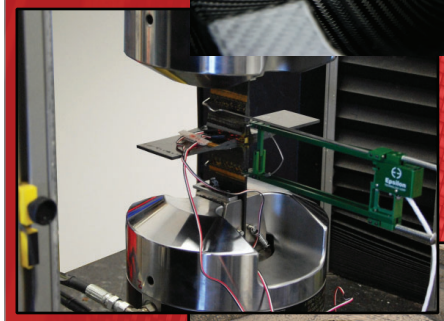
Nadcap Accreditation: Ithaca: MTL, NMMT
MTL: Louisville, Portland, Singapore, Suzhou
A2LA Accreditation: Ithaca (1140.01 / 1140.02), Louisville (1140.03/1140.04), Portland (1140.07), Singapore (1140.10), Suzhou (1140.09)

CURTISS-WRIGHT
IMR TEST LABS

Composite Materials Testing Services



www.imrtest.com

IMR provides a wide range of testing services, within a controlled environment, to evaluate the mechanical and physical properties of cured composites or raw pre-preg. We have worked with many leading manufacturers in the aerospace, power generation, automotive, infrastructure and other industries.

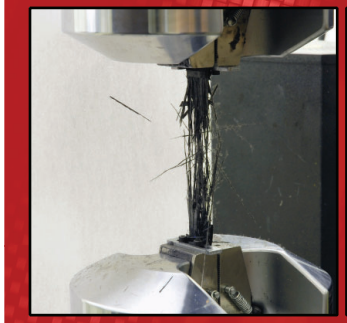
Lab Services

Tensile Properties (-320°F to 500°F)
- Cruciform
- Hoop
- Flatwise
- Standard (D638 & D3038)

Areal Weight
Bend Testing (3 point, 4 point)
Compressive Properties via Multiple Specifications
Constituent Content by Volume or Mass
- Resin
- Fiber
- Void

Density
Fatigue Testing
Filled Hole/Open Hole Tension/ Compression
Gel
In Plane Shear Response

(continued...)

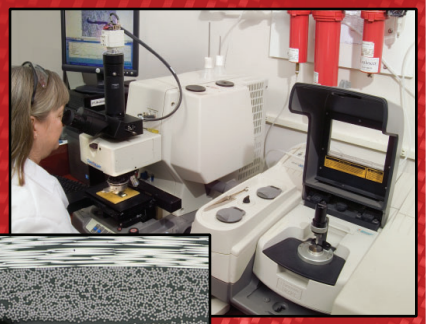


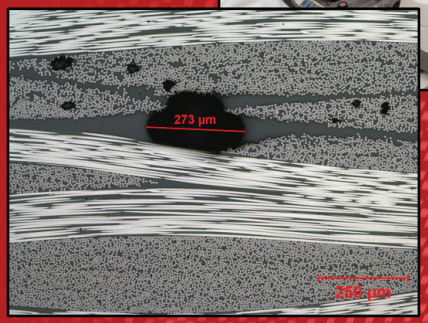
Services, continued:

Flexural Properties
- Modulus
- Strength
- Stress-Strain Response

Materialography
Peel Properties
- Climbing Drum
- Floating Roller

Resin Flow / Penetration
Sectioning & Microscopy
Shear Properties (Lap Shear, Short Beam)
Bearing Strength
Thermal Analysis
- DMA
- DSC
- TGA
- TMA





Why IMR?

At IMR Test Labs, we have the equipment, certifications, analytical techniques and a knowledgeable staff to help you.

This also includes a strict quality assurance program and approvals from:

- Nadcap (MTL All / NMTL ITH only)
- A2LA (ISO 17025)
- Boeing
- Bell Helicopter
- Gulf Stream
- Pratt & Whitney
- Sikorsky
- SNECMA - Groupe Safran

and many other major manufacturers.

At IMR Test Labs we are accessible and responsive. We understand that you need the right answer, on time.

Our dedicated NonMetallic and Composites team has extensive experience and credentials to test and analyze your samples Our analytical reports are comprehensive and written in understandable terms.

We utilize waterjet cutting as our preferred method of preparing samples. It allows us to create precise cuts without altering material properties due to heat and friction.