



# Service and Solutions for your Success



## RTI LABORATORIES, INC.

Environmental, Chemical & Materials Testing

### Mechanical Testing

- Tensile Testing \*
- Proof Load
- Rockwell Hardness \*
- Brinell Hardness \*
- Microhardness \*
- Charpy V-Notch \*
- Hydrogen Embrittlement
- Jominy (hardening)

### Metalworking Fluids

- Tramp Oil (%)
- Total Acid Number (TAN)
- Viscosity \*
- Four Ball Wear
- Seal Compatibility
- Wear/additive metals \*
  - Percent Water\* (Karl Fischer)
- ISO Cleanliness

### Exposure

- Humidity
- Salt Spray \*
- Chemical Exposure
- Cyclic Corrosion Testing
- Thermal Shock/Exposure

### Materials Characterization

- Microhardness (Knoop, Vickers) \*
- RPAS (Chrysler)
- RoHS- Metals
- RoHS -PBB and PDE
- RoHS-phthalates
- LS2 Lubricant Testing (GM)
- FTIR
- TGA DSC (High res & modulated)
- GC/MS & GC/MS Pyro
- PFAS compounds by LC/MS/MS

### Paints & Coatings

- Failure Analysis
- EPA 24 VOC
- Deformulation
- Thermal Analysis
- Contaminant Identification
- Batch/batch comparative analysis

### Cleanliness Evaluation

- Parts cleaning and gravimetric analysis (Millipore) (ISO4405) \*
- Parts cleaning and gravimetric analysis, particle size and distribution (ISO4406/16232) \*
- Parts cleaning and gravimetric analysis, particle size, composition and distribution (ISO4407/16232) \*
- Particle Size and Distribution by SEM (ISO 4407/16232) \*
- Particle Size and Distribution by Laser Scatter (ISO4406) \*

### Metallography

- Microhardness \*
- Microstructures
- Fractography
- Case Depth \*
- Inclusions \*
- Decarburization \*
- Plating / Coating Thickness \*
- Heat Treating
- Grain Size \*
- Scanning Electron (SEM) \*
- Energy Dispersive Spectroscopy(EDS) \*
- Microetching \*
- Macroetching \*
- Failure Analysis \*
- Electronic Component solder evaluation

### Destructive Testing

- Tensile Testing \*
- Gears and Springs
- Weld Evaluations
- Casting

### Environmental Analysis

- Wastewater \*
- Solid waste \*
- Air \*



\*Parameters that are specifically referenced in scopes of accreditation



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