

**Experienced Experts in
Global Testing Excellence**

Look inside Inteva. From years of success proving design integrity and meeting the performance needs of the world's automotive industry, Inteva offers you unmatched product-testing excellence. Our technical center test labs, precision equipment, superior software and experienced experts can help you reduce costs and save time in validating your electrical, mechanical and electromechanical components for:

- Environmental Durability
- Materials Strength Reliability
- Buzz-Squeak-Rattle Reduction
- Vibration Sound Evaluation
- Specified Operation, such as motor torque and speed

Rely on Inteva. Our advanced global testing capabilities can match your testing needs from concept through prototypes to production-ready parts. We can test to exact specifications or work with your team to develop new methods, plans and analyses. You can rely on Inteva to exceed your expectations.



Global Presence

The global footprint of Inteva Products covers four continents providing the capability for 24/7 engineering and manufacturing support to serve your production requirements. With operational and technical support worldwide, we can assure accurate and cost-effective solutions.

Inteva Products has manufacturing operations and technical centers in 18 countries across Asia, Europe, North America and South America.

Manufacturing and Technical Centers are

located in: Brazil, Canada, China, Czech Republic, France, Germany, Hungary, India, Japan, Korea, Mexico, The Netherlands, Poland, Romania, Slovakia, Spain, the United Kingdom, and the United States.

Inteva has over 30 state-of-the-art manufacturing facilities and 15 engineering and technical centers serving customers in over 40 countries. The company is headquartered in Troy, Michigan and employs over 8,000 people. Inteva has the expert testing capabilities you need to deliver results, backed by ISO/TS6949:2002 certification.

Learn More

To see how Inteva advanced global testing solutions and services can help you prove design integrity for meeting your performance needs, visit our website at www.intevaproducts.com or call us at **+1.248.655.8886**.

**ADVANCED GLOBAL
TESTING SOLUTIONS
& SERVICES:**

**Design Integrity Validated
to Meet Performance Needs**

**Robust Testing
Labs & Capabilities**

**Precise Data
Documentation
& Analysis**

**Expert Worldwide
Assistance & Guidance**



Environmental Durability

Inteva environmental testing capabilities help you benchmark product durability under temperature extremes and various humidity levels.



Highlights Include:

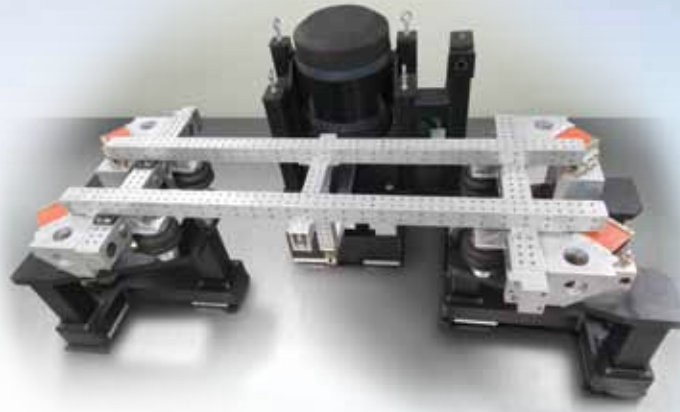
- Environmental Test Chambers (19)
 - Chamber Sizes Range from 3' by 3' to 10' x 15.5'
 - Thermal Shock Testing from -50°C to 177°C
 - Humidity Testing from 20 to 95% RH
- Electrical or Pneumatic Cycle Testing
- Salt Spray Testing per ASTM B117 8' x 4' x 4'

Buzz-Squeak-Rattle Reduction

Inteva buzz-squeak-rattle (BSR) testing capabilities offer you programmable options to run standard and custom test profiles.

Highlights Include:

- MB Dynamics Energizer Vibration Exciter with Power Amplifier
- Anechoic Chamber for Environmental Durability Testing
- Shaker Velocity 1.75 m/sec; frequency 0 to 3,000 Hz
- SQuadriga Sound Measurement System
- HEAD acoustics® ArtemiS Software



Vibration Sound Evaluation

Inteva sound testing choices assist you in evaluating product performance under steady and oscillating vibration.

Highlights Include:

- Environmentally Controlled Anechoic Chamber with Integral Shaker Capabilities
- Operational Noise Evaluation
- Test Conditions from -40°C to 85°C

Material Performance

Inteva material testing services give you a range of options for validating performance under various conditions.



Highlights Include:

- Polymer Rheology
 - Capillary Rheometer
 - ARES Rheometer
 - Melt Flow Rate
- Thermal Analysis
 - Dynamic Mechanical Analyzer (DMA)
 - Differential Scanning Calorimetry (DSC)
 - Thermogravimetric Analyzer (TGA)
- FTIR Spectroscopy
- Mechanical Testing
 - High Speed Driven Dart Impact
 - IZOD/Charpy Impact
 - Stress/Strain Testing
 - > Ultimate Strength and Flex Testing for Bending, Shear and Peel Integrity
 - > Capacities from 5 N to 100 kN
 - > Bed Widths up to 36"
- Surface Analysis
 - Scratch and Mar
 - Chemical Resistance
 - Touch and Feel Friction Property Haptics
 - Digital Microscopic Imaging
 - CMM Parts Measurements
 - Shore Hardness Testing



Specified Operation Testing

Inteva specialized test solutions provide you choices for conducting product testing to meet specific operating and application parameters.

Highlights Include:

- Airbag Deployment Testing with all thermal conditions and video captures
- Electric Motor Dynamometer Testing from 0.035 Nm to 28 Nm
- Complete Test Fixture Design-Build
- Weld Testing Certification
- Abrasion Resistance Testing
- DC Voltage and Current Measurement
- Glass Strength Testing
- Water Entry Testing

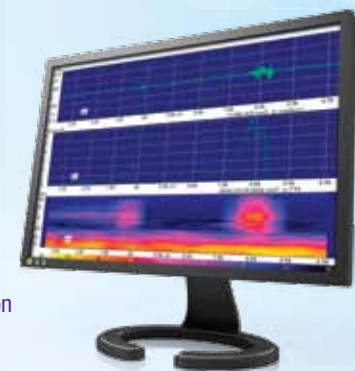


Software Solutions

Inteva advanced software solutions are used to secure accurate data and aid precise analysis of product operating parameters during testing.

Highlights Include:

- Road 2 Lab Data Collection and Test Replication
- Automatic Dynamic Analysis of Mechanical Systems (ADAMS)
- National Institute LabView Computer-Aided Data Acquisition
- Finite Elements Analysis (FEA), Variation Simulation Analysis (VSA)
- Other analysis tools for specific requirements
- Full range of situational analysis capabilities



INSIGHT. INSIDE. INTEVA.