

## PACKAGING OPTIMIZATION



- Do your products get to their final destination damaged?
- Are your packaging costs too high?
- Do your customers want you to test your packaging?
- Do you need help to design your packaging?
- Do you need to show packaging compliance to ISTA, NMFTA ?
- Do you need to demonstrate that your packaging meets the requirements of the Transportation of Dangerous Goods Regulation (UN)?

We can help you optimize your packaging to save money on shipping damages and packaging costs. Our packaging lab is ISTA accredited (International Safe Transit Association) and our results are also accepted by Transport Canada, Wal-Mart.com and JC Penney.

## TAKE THE GUESS OUT OF THE EQUATION

We offer a scientific approach to your day-to-day packaging problems.

- Packaging optimization
- ISTA 1a, 1b, 1c, 1d, 1e, 1g, 1h, 2a, 2b, 2c, 2d, 2e, 3a, 3e, 3f, 3h, 5b, 7a, 7b, 7c, 7d
- NMFTA rule 180, 181
- Transportation of Dangerous Goods Regulation (UN, CAN/CGSB-43.150 & 43.146)
- Vibration (ASTM D 999, A1, A2)
- Drop (ASTM D 5276)
- Performance testing of shipping containers (ASTM D-4169 )
- Random Vibrations testing (ASTM D-4728)
- Compression (ASTM D 642)
- Incline Impact (ASTM D 880)
- Atmospheric Conditioning (ASTM D4332) (-73°C-+150°C, 10-95% RH)
- Bridge Test (ASTM D-5265)
- Thermal Insulation Quality of Packages (ASTM D-3103)
- Rotational Drop (ASTM D-6179)



## Beyond Packaging testing

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### MATERIAL TESTING SERVICES:

Micom Laboratories Inc. offers routine and non-routine material testing for a wide range of materials and products. Whether it is for temperature and humidity cycling, ultraviolet exposure, surface finishes, Isothermal packaging or mechanical properties, our material testing experts will be happy to help you put together a meaningful test plan that will address your needs and give you real answers. With years of specialized technology testing expertise, in-depth experience and absolute commitment to customer care, our team of experts does more than simply test your products. Micom Laboratories Inc. strives to deliver material testing services of outstanding value to our diverse customer base.

### SPECIFIC MATERIAL TESTING SERVICES:

Micom offers a wide variety of mechanical and physico-chemical material testing according to various standards (ASTM, CGSB, ISTA, ANSI, CSA others). Our specialists can also provide you with custom material testing services focused on your specific needs.

Our facilities allow us to test a wide range of raw materials and finished products. Whether you need temperature chain testing, consumer products, composite materials, or accelerated ageing Micom's staff is always available to support your technical needs.

Our facilities are also equipped to test prototypes, simulate intensive use of products and materials either to validate your design or investigate a field failure. Our quality control system complies with ISO 17025.

### THE TEST METHODS AND SERVICES OFFERED INCLUDE:

#### Corrugate and Honeycomb Testing:

- Taber Abrasion (T 426)
- Board Analysis (T 410)
- Board Quality Analysis (T 410)
- Board Thickness (T 411)
- Boat Method (T 819)
- Burst (Mullen) (T 807,810)
- Cobb
- Coefficient of Friction (T 815)
- Construction
- Edge Crush Test (T 811)
- Flat Crush (T 825)
- Float Curl (T 832)
- Manufacturer's Joint Tensile Test (T 813)
- Moisture Content at Equilibrium (T 412)
- Pin Adhesion (T 821)
- Score Quality Test (T 829)
- Tear Resistance (T 414)
- Tensile Strength (T 494)
- Thickness (T411)
- Water Absorption of Corrugated Medium
- Water Drop (T 835)

### **MATERIAL PROPERTIES:**

- Tensile Strength (ASTM D-638, D-1623, D-2990, D-5574)
- Compressive Strength (ASTM D-695, D-2990, D-4762)
- Flexural Strength (ASTM D-790, D3043, D-5616)
- Foam (ASTM D-3574)
- Latex gloves (ISO-10282 & 11193)
- Moisture Absorption (ASTM D-570)
- Particle Board Testing (ASTM D-1037)
- Specific Gravity (ASTM D-792)

### **CLIMATE EXPOSURE:**

- Climatic chambers (Humidity, temperature cycling)
- (-73°C à +150°C, 10 – 95% RH)
- Weatherometry, U.V. exposure
- (ASTM G 155)
- Salt spray (ASTM B-117)
- Accelerated temperature ageing
- Laboratory simulations of field failures
- Thermal shocks
- High and low temperature tensile and compression tests
- Long term exposure for stability studies



### **OTHER SERVICES AND TESTS:**

- Various flammability tests
- Computer data acquisition and control
- Custom testing
- Hazardous Products act, (lighters)
- Research and development
- Other ASTM test methods
- Scientific expertise and consulting services