Coating Cost Control ... Why Weight?

Industry Update from Sensory Analytics
Dedicated coating thickness & film weight control focus

The source for SpecMetrix® technology

- Unique optical technique for all can coatings
- Cost-saving solutions exclusively from Sensory

The latest evolution of film weight measurement

- Gravimetric weight methods
- Capacitance gauging
- Basic and indirect optical tools
- Absolute SpecMetrix measurements

Winner of Innovation (Gold) Award – Metpack 2011
Broad Industrial Adoption of SpecMetrix Technology

- Aerospace & defense
- Nanotechnology
- Medical devices
- Electronics
- Plastic packaging
- Rigid packaging
- Metal coils and containers
Opportunity: **Real-Time Coating Process/Film Weight Control**

Reduced plant production costs
- Shorter set-up and change-over times
- Lower coating consumption
- Less waste and over-application
- Increased production throughput

Improved coated product quality
- **All** container coatings now accurately measured
- Non-contact, with immediate thickness results
- Enhanced coating process/QA documentation

Reduced environmental footprint
Broadest Range of Metal Packaging Uses

- 2-PC beverage and food containers
- Coated end-stock and metal coils
- Coated flat sheets
- Coatings over all print and colors
- Closures, caps, tabs and ends
- Laminated films to metal substrates
- Aerosol, specialty containers and tubes
Current Range of SpecMetrix® Certified Coatings:

SpecMetrix® systems can measure all internal and external beverage container coatings, including:

- Inside spray
- Rim coats
- BPA-free
- Over-varnish

Base coats
Coated end stock
Tab stock - all colors
even over print or black
Current Range of *SpecMetrix®* Certified Coatings

3-PC, Flat Sheet, Food, Aerosol, Specialty and Closures

*SpecMetrix®* systems can measure all internal and external food, aerosol and specialty container coatings, including wash coat and clear, white, gold, gray, aluminized and all coloured coatings:

**Clear coatings**

**Pigmented coatings**
- White
- Aluminized
- Coloured base coats

**UV and thermal-cured**

**Water or solvent-based**

Roller applied or sprayed
Impact: Over-Varnish Measurement Map for 2-PC Containers

SpecMetrix® ACS Systems are used to quantify and analyze overlap area
Impact: Over-Varnish Mapping Helps Uncover OV Issues

OV map: Can **without** ink

OV map: Can **with** ink

Bare can OV measurement does **not** accurately reflect printed can film weights
Impact: Rim Coat Measurement on 2-PC Containers

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SpecMetrix® ACS Systems used to establish new rim coat thickness specification
Impact: Wash Coat Measurement of D&I Food Cans

Real-time coating measurement data can:
- Help improve plant processes
- Reduce coating or production costs

Wash coat savings at D&I food can maker exceeded US $1 Million/year
SpecMetrix system configurations for metal container plants
Corporate R&D, Tech Centers and Plant QA Stations

2-PC Beverage

3-PC, Flat Sheet, Food, Aerosol, Specialty and Closures

Superior Gage R&R results
2-PC Beverage

ACS Production & QA systems

SpecMetrix ACS
Single (up to 12) can evaluations
Full or target area mapping
Over-varnish mapping
Inside spray mapping
Rim coat measurements
Spray nozzle and OV adjustment tool

SpecMetrix ACS-10

SpecMetrix A-ACS
Multiple container measurements
Beverage and food container use
Manual or conveyer loading/return
Inside spray and OV mapping
Options: Integrated Enamel Rater
Color dot recognition
In-line inspection of wet or dry flat sheets, end stock or closure coatings
Single sheet measurement mode for immediate first piece approvals
Measures at coating lines speeds of over 600 metres per minute
Running average shown – with all data saved for SPC and/or QA use
Closed loop film weight control with SpecMetrix systems - now available
Final Thoughts for Consideration …

- Process improvement can be accelerated with real-time data
- With the right tools, applied coating distribution can be optimized
- Major dual-benefit opportunity: cost-reduction and improved quality
- Enhanced process control can offer new can maker opportunities:
  - SpecMetrix: an ally in BPAni coating qualifications & supply?
  - SpecMetrix: an aid in restricting environmental impact & waste?
  - SpecMetrix: an aid for moving from weights to thickness data?
  - SpecMetrix: tools to help can makers find unrealized cost savings.
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