

Engineered Materials

Always Advancing to Protect What's Important



Engineered Materials Leadership Team



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Performance Materials



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Product Spotlights

Performance Materials

Next generation stretch film

Proprietary technology withstands extreme working environments

Market Dynamics

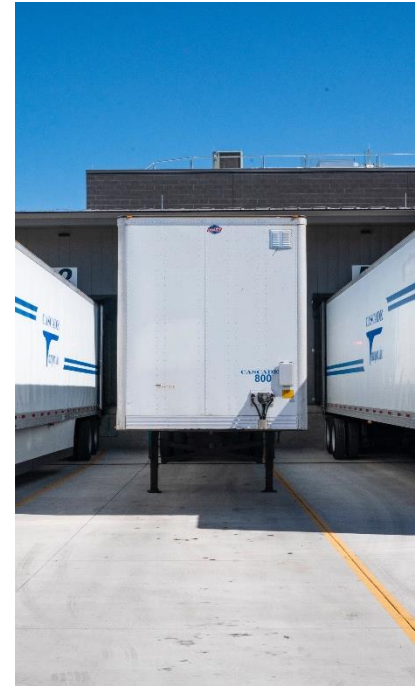
- Damaged loads cost industry \$2 billion per year
- Average material cost is 70 cents per pallet
- Average value of product = \$4,500 per pallet

Performance Film Value Proposition: Damage Reduction

- Superior tear and puncture propagation resistance
- Expanded operating window – equipment and temperatures
- Improves wrapping efficiencies
- Bottling operations throughput rates at 40+ pallets / hr
- Sustainability driven by less film use



TRANSCEND™
MACHINE FILM



Engineered Products

Converter films growth highlight

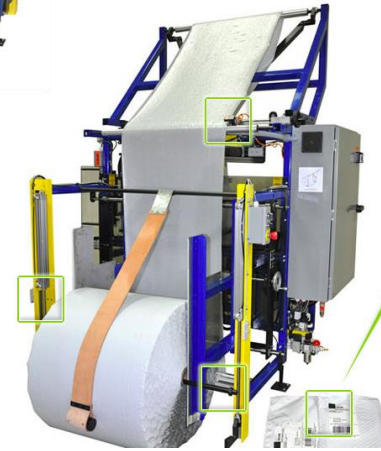
Air Jacket Mailer Construction

- Three film layers heat laminated together
- Berry to supply outer white/silver layer (*multi-layer construction*)
- 2-color print
- 3-year commitment secured with possibility of an additional 3 years

Major Capital Investments in Orillia and Bowling Green

Volume Expectations:

- 2018 = 20 million lbs
- 2019 = 50 million lbs
- 2020 = 100 million lbs



decrease labor cost!
PACjacket3 system only
seals your product in a
weight ultra-protective
mailer made from a 3
moisture resistant, multi
layers of co-extruded



Finished Package

One longitudinal seal which
enhances security of the
contents.

off the system.

The multitude of enhancements
designed into this new
PACjacket3 have increased
throughput speeds up to
increase production 30% without

Partnership With:



Engineered Materials Division

Retail packaging spotlight



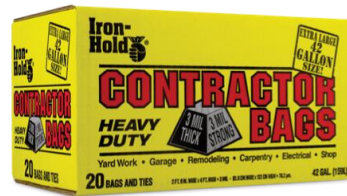
Old Retail Packaging Design

- Communication not aligned to consumer decision-making
- Illustration graphics
- 3-color, direct print packaging

New Retail Packaging Design

- Photographs (unique by gallon size)
- Iron-Hold logo highlighted
- Aligned to consumer decision-making criteria
 - Compartmentalized for ease in shopping
 - Gallon, count, mil gauge, closure
 - Color-coded by gallon size
 - Made in USA call-out
- 4-color process print production
- Integrated box handle added

42 Gallon



55 Gallon



Engineered Materials Division

Custom films spotlight - compressed mattress film

Growing Market of Compressed Mattresses

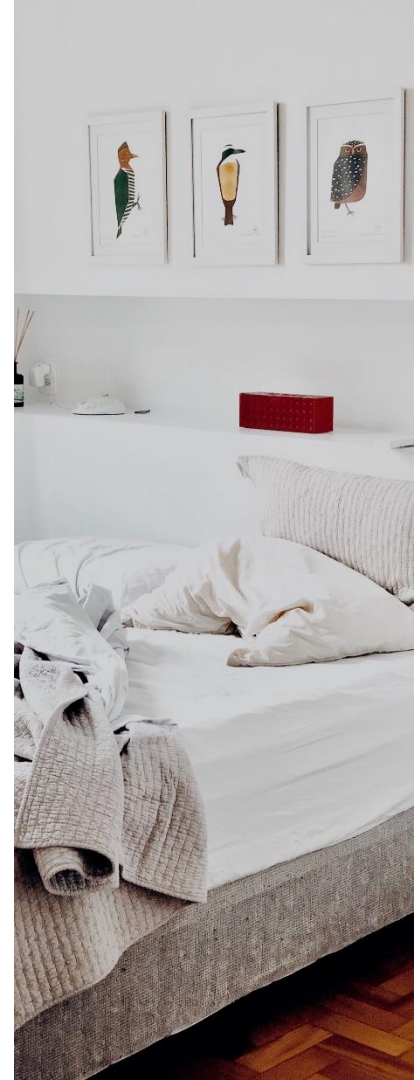
- Demographic / channel driven
- ~10% of US retail mattress sales (\$14B industry)

Well Positioned

(Leveraging legacy AEP business)

- Custom film product development
- Excellent market coverage / product knowledge
- Selling to end-users and equipment manufacturers

Product and Customer Diversification Preserves volume and enables growth.





Thank You

Questions?