Tinplate Steel - Industry Update

SATA Conference
October 4, 2008
Four Steps to Make Tinplate

- **Raw Materials:** iron ore, coking coal & the energy to heat to ~3,000°F

- Molten Steel Poured Into Continuous Caster which produces Hot Band / Slab (~20’X6’X6”)

- Rolling Mill is 6 or more stands (rollers) to re-form Hot Band into Cold Rolled Coil (~400’X6’X 1/16”)

- Tin Mill where super thin cold rolled is uncoiled and immersed in a molten tin bath (tinplate) & recoiled for shipment to can makers
  - Microns thin Tin coating is used to protect the steel from corrosion
As a rough guide it costs ~$150/ton to upgrade hot band to cold rolled and another ~$150/ton to upgrade cold rolled to tinplate.

Steel is the MOST recycled packaging material.

32% Scrap Steel
25% Post-Consumer

Tinplate
Max Value Added

Hot Rolled Steel
Minimal Value Added Commodity

Cold Rolled
Auto’s & Housing
Tinplate 10 Years Ago

- 7 Integrated mills producing tinplate in US
  - US Steel, LTV, Bethlehem, Weirton, Posco, National, Wheeling-Pitt

- 2 Integrated mills producing tinplate in Canada
  - Dofasco and Stelco
North American Tinplate Dynamics

There are four tinplate producers with a total of eight integrated steel mills.

- US Steel, 1350
- Arcelor Mittal, 1030
- Posco, 400
- Severstal, 710

Mini-mills cannot control the chemistry of their recycled steel closely enough to make tinplate or the lighter gauges of cold rolled steel.

Foreign demand for steel products of all specifications combined with a weak dollar have limited imports and encouraged exports of steel products including tinplate.

N. American Tinplate Consumed - 2007

- Tinplate Produced in N. America 88%
- Imported Tinplate 12%
US Steel

- Mills:
  - Gary, Indiana
  - East Chicago, Indiana
  - Midwest, Indiana
- Tinplate Capacity in Tons: 1,350,000 est.
- Of Note:
  - US Steel is the only publicly owned US based steel producer in North America. US Steel also owns steel mills in Eastern Europe
Arcelor Mittal

- Headquarters: Luxembourg
- Mills
  - Hamilton, Ontario (Dofasco)
  - Weirton, West Virginia
- Tinplate Capacity in Tons: 1,030,000 est.
- Of Note:
  - Acquired the two mills above plus Sparrow’s Point (formerly Bethlehem Steel’s primary mill) in 2006/2007.
  - US Gov’t forced sale of Sparrows Point to prevent Arcelor Mittal from dominating the North American tinplate market
Severstal

- Headquarters: Russia
- Mills
  - Sparrows Point, Maryland
  - Yorkville, Ohio (Ohio Coatings)*
- Tinplate Capacity in Tons: 710,000 est.
- Of Note:
  - Severstal’s first North American acquisition (Sparrow’s Point) occurred in late Spring 2008

* 50% owned by Severstal; 50% owned by TCC of Korea
USS Posco*

- Headquarters: Pittsburgh, California
- Mills:
  - Pittsburgh, California
- Tinplate Capacity in Tons: 400,000
- Of Note:
  - USS Posco is the only steel mill West of the Rockies producing tinplate.

* USS Posco is a joint venture between US Steel and Posco of Korea
Summary

- Four steel companies operating in North America provide 88% of the tinplate consumed in N. America in 2007.

- Arcelor Mittal and Severstal are both foreign owned and both acquired their N. American tinplate capacity within the last 3 years.
  - Old management business plans have been jettisoned by foreign owners focused on making money, not protecting a domestic industry.

- No new tinplate capacity has been added in N. America in more than 20 years
  - Arcelor reduced N. American tinplate capacity by 10% by closing one of the two tinplate operations at Dofasco shortly after they acquired that mill in 2007
  - Domestic mills have become very good at controlling supply to closely match demand. Old owners used to keep furnaces running even with slack demand.
## Commodity Price Summary

### Rationale for the May steel price increase

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Cost Increase Spring 2008 $ / Ton</th>
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<tbody>
<tr>
<td>Coke</td>
<td>$ 112</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>$ 72</td>
</tr>
<tr>
<td>Tin</td>
<td>$ 28</td>
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<tr>
<td>Steel Scrap</td>
<td>$ 23</td>
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<tr>
<td>Natural Gas</td>
<td>$ 18</td>
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<td><strong>Major Commodity Impact</strong></td>
<td><strong>$ 253</strong></td>
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Weak US dollar has incentivized domestic mills to export and effectively eliminated imports.

The recent dollar rebound still leaves a 30-40% price advantage for the buyer of US steel products paying in Euro’s.
SteelBenchmarker™ HRB Price
USA, China, Western Europe and World Export
(WSD's PriceTrack data, Jan. 2000 - March 2006; SteelBenchmarker data begins April 2006)

August 25, 2008
Limited quantities of tinplate are available today at $1200-1400 / ton
Steel Pricing Arithmetic

- As a practical matter it costs the steel mill about
  - $100 / ton to convert hot band into cold rolled steel
  - $125 / ton to convert cold rolled steel into tinplate

- Selling prices:
  - Hot bands on contract ~$750/ton (spot is $1150/ton)
  - Cold rolled steel is selling for about ~$1250-1300 / ton
  - Tinplate (under contract) is selling for ~$950; spot prices $1300 - $1400/ton.

Why convert hot band to tinplate at a loss?
Now you know why

Prices are up

and Supply is down
Reality Check

What can the aerosol can manufacturers do:

- Continue to manage “other” costs including labor, freight and so on

- Explore ways to reduce the metal content of our containers without impacting their performance

Operate as transparently as possible under current business conditions and regulations
Tinplate Aerosol Can

- Has been in continuous use since WWII.
- Is 100% recyclable and contains minimum of 30% recycled steel content.
- Tinplate is most recycled packaging material in world.
- Tinplate is not going away.
  - Tinplate food cans most efficient storage and is the largest consumer of tinplate produced.