

STARBRITE® REVEAL: ENVIRONMENTALLY FRIENDLY AND SUSTAINABLE

Film-based VMP Process

Plastic Film Production

The film-based VMP starts with a central plastic substrate. This has a carbon-footprint from the energy used in its production.



Roll-Coating

Each layer of metal is separated by a release coat. This makes the use of the film more efficient, but the process involves another system (power usage) and the potential for VOCs.



Fuel Costs, 2

The film is transported again, this time to our production facility.

Film Processing

With its own roll-handling equipment, film stripping and cutting machines, preparing the VMP from the film is energy intensive.

Special handling of the roll requires significant purging with inert gas; over 27X more solvent is lost versus the simplified Reveal process.



Fuel Costs, 3

The substrate film is no longer usable for metallization due to heat and mechanical stress. It is shipped off once again for disposal.

Film Recycling

Recycling is a better fate but the process is energy intensive.
The film based process produces 25kg of plastic per kg of metal.

Start Process

1



Fuel Costs

The roll, before metallization, makes up the majority of the finished film weight.

2



Vacuum

Every new layer brings the film from the metallizer to the roll-coater. This requires the vacuum to be reestablished, its own energy-intensive process.

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SILBERLINE™
FROM SCIENCE TO SHINE™

Product Ready for Customer



Starbrite Reveal Process

The Reveal process begins at metallization.

The metal layer and release coat are applied continuously during the process. The vacuum is maintained and there is no potential for VOCs.

1



Weight Savings

The Reveal feed is 14-20 times more efficient by weight. That translates into fewer trips and less fuel per trip.

2



Zero Film Handling

The Reveal process has no film to handle and uses 1 step for processing the feed. **It is over 50X more energy efficient per kg of metal.**

3

While the final product remains largely the same, the road to Reveal is much greener than the traditional VMP processes. By eliminating whole steps in creating the feed and final products less power is required. While energy production is offset with sustainable sources, reducing the demand and strain on infrastructure makes a faster and more capable transition.

The complete removal of the film is a serious innovation in VMP production. This core is the vast majority of weight which must be transported multiple times. While green production chemistry and recycling help to soften the impact, this represents a huge mass of single-use plastic.