Historical old-school Metallizing: Not a Model of Sustainability.

- Performed in separate factories often halfway around the world. Energy required for shipping plastics to metallizing facilities and then to filling plants.
- Primers, basecoats, and topcoats used were lacquers that contained high %’s of VOC’s.
- Production lines required not only large footprints but high energy usage.
- High labor and material usage translated to high costs. Often 5-10X molding costs.

Green Metallizing  Chrome (VI)-free  Cost Effective  Reliable Process  Sustainable Process
Sustainability Attributes of SINGULUS DECOLINE II – Inline Production System for Green Metallizing of 3D Parts

→ Low labor requirements of DECOLINE II allows for on-shoring of metallizing at competitive costs
→ Proximity to molding operations allows for the elimination of solvent borne primers
→ 100 % solids topcoat and basecoats (with no VOC’s are now available and being used on DECOLINE II machines)
→ Elimination of basecoat operations is commonplace on some plastics such as PET, ABS, PC
→ Elimination of conventional topcoats is feasible on many projects with DECOLINE II
→ Unlike plastic electroplating and silver nitrate metallizing there is NO water consumption
→ Lower energy use per part built in by design:
   → Small footprint and related facility energy issues
   → Precise sputtering process for metal deposition
   → Robotic application of organic base and topcoats (when required) for reduced waste
   → Completely in-line process for reduced handling of parts for lower defects and scrap
   → UV curing of base and topcoats (when required)
→ Low resin and metal content of metallized decoration as a % of total plastic weight = Recyclability in many applications
→ High sustainability and inline automation translates to extremely low decoration costs. Most applications for high volume PP caps cost only 1-2X molding costs.

Solution for Sustainable and Cost Effective Metallized Decorations = SINGULUS DECOLINE II