Overview of Painting
The painting process is considered to be the application of a liquid organic coating to a substrate. Substrates can be plastic, wood, metal, ceramic, foam, paper, etc. The “paint” can vary from solvent based to 100% solids in the case of UV curing liquids. So the paint can be liquid due to various carriers such as solvents or water to a two-part epoxy paint or UV curing paint that cure by cross-linking rather than drying by the evaporation of the carrier.

The paint can be applied by various spraying methods such as electrostatic spray, high pressure spray, HVLP (high volume, low pressure) spray, etc.

Typical steps in a painting process:
1. **Cleaning** (typically an alkaline cleaner)
2. **Rinsing**
3. **Phosphating** (optional step to improve corrosion protection and paint adhesion)
4. **Part Drying**
5. Painting
6. **Part Drying / Curing**
Example of electrostatic paint spraying, with very little overspray behind the parts

http://www.pfonline.com/products/high-kv-electrostatic-spray-gun