

**Powder coating** is a type of dry coating, which is applied as a free-flowing, dry powder. Powder coating is mainly used for coating of metals.

There are several advantages of powder coating over conventional liquid coatings:

1. The main difference between a conventional liquid paint and a powder coating is that the powder coating does not require a solvent to keep the binder and filler parts in a liquid suspension form.
2. Powder coatings emit zero or near zero volatile organic compounds (VOC).
3. Powder coatings can produce much thicker coatings than conventional liquid coatings without running or sagging.
4. Powder coating overspray can be recycled and thus it is possible to achieve nearly 100% use of the coating.
5. Powder coating production lines produce less hazardous waste than conventional liquid coatings.
6. Capital equipment and operating costs for a powder line are generally less than for conventional liquid lines.
7. Powder coated items generally have fewer appearance differences between horizontally coated surfaces and vertically coated surfaces than liquid coated items.
8. The coating is typically applied electrostatically and is then cured under heat (baked-on) to allow it to flow and form a "skin." The powder is positively charged, the metal is negatively charged, binding each other. It is usually used to create a hard finish that is tougher than conventional paint.
9. A wide range of specialty effects is easily accomplished which would be impossible to achieve with other coating processes.