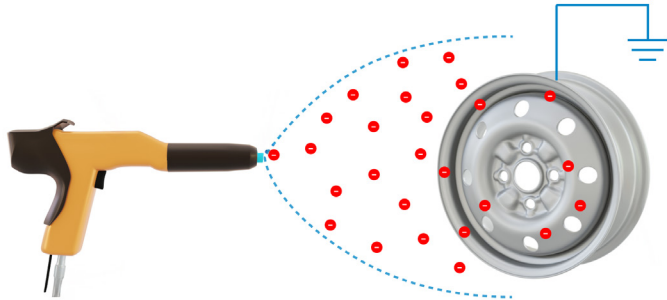


# Powder Coating Fundamentals

*eLearning courses designed to increase productivity and profits*



## Learning Made Simple, Visual, and Interactive

Credit Hours **2.5**

The THORS *Powder Coating Fundamentals* course is relevant for learners who are new to the industry, as well as experienced learners who require a deeper knowledge of the equipment and processes involved in powder coating. This course offers an interactive learning experience that allows learners to gain an in-depth understanding of powder coating, including the requirements, equipment, and various processes involved.

## Learning Objectives

- 💡 Distinguish between thermoplastic powders and thermosetting powders based on their properties and applications.
- 💡 Identify the steps involved in part preparation.
- 💡 Recognize the types of powder coating booths and powder coating devices used in a powder coating setup.
- 💡 Describe the powder recovery systems, curing ovens, and part handling equipment associated with the powder coating process.
- 💡 Develop an understanding of the powder coating process, including powder feeding, powder application, and curing.

## Table of Contents

### I. Requirements

- Powder Types
  - ▣ Thermoplastic Powders
  - ▣ Thermosetting Powders
- Part Preparation
  - ▣ Cleaning
  - ▣ Degreasing
  - ▣ Activation
  - ▣ Conversion Coating
  - ▣ Drying

### II. Equipment

- Powder Coating Booths
  - ▣ Open-Faced Booths
  - ▣ Conveyorized Booths
- Powder Coating Devices
  - ▣ Spray Gun
  - ▣ Bell Applicator
- Powder Recovery Systems
  - ▣ Cartridge Recovery Systems
  - ▣ Cyclone Recovery Systems
- Curing Ovens

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### II. Equipment (continued)

- Part Handling Systems
  - ▣ Batch Handling Systems
  - ▣ Continuous Systems

### III. Process

- Powder Feeding
- Powder Application
  - ▣ Fluidized Bed Dip Method
  - ▣ Electrostatic Spray Method
- Curing
  - ▣ Convection Curing Process
  - ▣ Infrared Curing Process

