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IEM Standard Powdercoat Process

THIS DOCUMENT WILL EXPLAIN HOW A PIECE OF STEEL PROCEEDS THROUGH THE POWDERCOAT LINE IN PREPARATION FOR USE IN THE END PRODUCT

Prior to the application of powder, the steel is cleaned and pre-treated in 5 stages:

Stage 1 – Steel is cleaned with a solution of water (96%) and SurCoat #116 phosphoric acid (4%).
Time – approx. 5 min.

Stage 2 – Steel is rinsed with water.
Time – approx. 5 min.

Stage 3 – Steel is cleaned with a solution of water (96%) and SurCoat #116 phosphoric acid (4%).
Time – approx. 5 min.

Stage 4 – Steel is rinsed with clear de-ionized water.
Time – approx. 5 min.

Stage 5 – Steel is rinsed with clear de-ionized water.
Time – approx. 5 min.

The steel then passes through a dry-off oven at a temperature of 170 degrees (F).
Time – approx. 15 min.

The steel then passes through an application booth where the powder is electrostatically applied. Powder is emitted from the automatic applicators with a high voltage electrostatic charge; the steel is electrically grounded through the conveyor line, causing the powder to adhere until baked.
Time – approx. 15 min.

After the powder is applied, the steel continues through the bake oven, where it bakes at 390 degrees (F).
Time – approx. 20 min.

Total time including time between stages and cool-down time: approx. 2 hours.