

PPG Industries

Global Supplier of Glass, Paint, & Coatings

Solutions: RFID Automated Tracking System

RES Software: AIMS

RFID Successfully Automates Inventory Tracking

Overview

PPG Industries is an American based billion-dollar company, specializing in the manufacturing of glass, paints, coatings, and related specialty products. With operations in over 70 countries around the globe, **PPG** is considered a goliath in the glass and paint industry.

RES first came into contact with **PPG** through their Carlisle, Pennsylvania plant, a location dedicated to the manufacturing of glass and glass coatings. Here, large sheets of glass and glass packs are produced, modified, and stored in large bays until being shipped out to customers. **RES** was asked to implement an RFID based inventory management system that would improve overall inventory accuracy, as current **PPG** processes were error prone, especially those associated with glass storage.



Prior to working with **RES**, pack trucks would pick up the large sheets or packs of glass from the production areas, where they would receive verbal instruction to either transport them to specified storage bays or to points within the plant that applied coatings. Should any location or inventory changes occur after leaving the production area, for example a storage location is full or a sheet of glass breaks during transport, the truck operator is required to return to production and report the information to personnel, who then must update the system.

Challenges

- Accurately tracking the glass through transport and storage was almost impossible due to **PPG**'s manual tracking system. Problems occurred when glass was taken to or stored in incorrect areas, as there was no system in place to locate these "missing" items.
- **PPG**'s reliance on verbal communications and the "honor code" was extremely inefficient. Because the process of reporting location and inventory changes was time consuming, employees often failed or forgot to report the information, leading to data errors.
- There was a need to monitor product life cycle, as some of the coatings applied to the glass had expiration dates. Although **PPG** had a strict first in, first out policy for these items, it was not always followed, which led to costly product waste.



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Solutions

RES was able to address **PPG**'s accuracy and efficiency issues through the development a 100% automated RFID enabled glass tracking solution, powered by **RES**'s asset inventory management (**AIMS**) software.

System implementation began by installing RFID readers and antennas onto all **PPG** pack trucks that were used for transporting glass around the factory. These trucks were also equipped with tablets running the **AIMS** application. Next, RFID tags were permanently affixed onto all pick up and drop off locations, including production points, glass storage bays, and coatings areas. When a sheet or pack of glass is produced, an adhesive RFID tag will then be printed and adhered to the item, thus linking the unique RFID number with all relevant product information in the database.

From here, the automated tracking process begins. As a truck approaches for a pick up, the truck's RFID reader and antennas register the RFID location tag and glass label. Once read, the item's SKU information, pick up location, and pick up time are committed to the database. The carrier can also see this information on the truck's tablet screen. In addition, a drop off area is recommended based on the item's SKU.

As long as the truck's RFID reader and antennas continue to read the glass on the carrier, a new location will not be assigned. However, once the truck enters a new location, the system will read the location's RFID tag and assign the sheet or pack of glass to the new location as soon as the glass disappears from the carrier's "read" view, signaling that it has been dropped off. This information is then committed to the database and accessible in real time.

The database will capture all movements of RFID tagged labels, including date, time, from location, to location, and truck number. The system will also be able to report location capacity and dwell time.

Ongoing Benefits

Since implementing **RES**'s automated system, **PPG** has experienced accuracy and efficiency like never before.

- Inventory is now tracked with 100% accuracy. The efficient, automated system has also eliminated the chance for missing items.
- The system has made manual processes, which relied on verbal direction, obsolete.
- Product life cycles are monitored through the **AIMS** system. Configurable alerts ensure that all products are used in a timely manner and without waste.

Contact us today to schedule your consultation!

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