

# "We went with ITW Gema because we can't afford to waste powder."



## THE COMPANY

Windsor Metal Finishing is a privately held company that specializes in architectural finishing. Located in Kissimmee, they are currently the only company licensed in Florida to provide the complete lines of high-performance fluoropolymer coatings compliant with the extensive requirements of the American Architectural Manufacturer's Association's (AAMA) Specification 2605-8.

## THE CHALLENGE

Operating as a purely liquid coating facility, Windsor saw that there was an opportunity to expand their operation by offering high-end powder coatings capable of withstanding Florida's harsh environment. The combination of high humidity, salt-laden air, strong UV rays, and abrasion from windblown sand, quickly cause fading and chipping and Windsor wanted to provide a solution to these problems. Florida's "Green Building Movement," encouraging businesses to provide more environmentally-friendly finishing solutions, created additional motivation to upgrade their operation with a powder coating line.

## THE SOLUTION

Because part sizes can be large and vary significantly from job to job, a manual application technique was determined to be the best option. EasySystem™ touch-up units with OptiTronic™ controls were installed in a cartridge-style booth. The powered roll-on/roll-off booth gives Windsor the flexibility to perform both liquid and powder coating operations on the same conveyor line.

## THE SAVINGS

The new system has been so successful that it helped Windsor to win the Governor's 2004 Council for Sustainable Florida Small Business Award. As powder continues to grow and replace liquid coating applications at Windsor, disposal costs of volatile chemicals have been declining. Since the powder coated parts do not require a primer, the elimination of this step has led to time savings, as well as other cost reductions associated with the liquid process. The efficiency and cost-effectiveness of the upgrade, coupled with increased business volume, has enabled Windsor to realize double the profit level anticipated at the start of this project.

# ITW Gema

Superior By All Measures



*"When your powder costs more than \$20.00 a pound, precise application becomes critical."*

*Malcolm Brant, Windsor Metal Finishing*

READY TO UPGRADE?  
**FOLLOW  
THE LEADERS**

*Leaders Like Windsor*

*Call 800-628-0601 and ask for Debra or visit [www.itwgema.com/upgrade](http://www.itwgema.com/upgrade) for a free assessment of your powder coating operation.*

# Windsor Metal Finishing Achieves Award-Winning Results With OptiSystem™

*"Gema has been wonderful, especially when it comes to service."*

With the addition of a powder coating line from ITW Gema, Windsor Metal Finishing has been able to add new product offerings, create a more environmentally friendly workplace, save money, and win one of Florida's most prestigious small business awards.

A case study from Windsor Metal Finishing

**Windsor Metal Finishing is a custom applicator of high - performance architectural coatings. Serving the aluminum building products market, they are a provider of fluoropolymer and super durable polyester liquid and powder coating solutions.**

## Company Background

Malcolm Brant, President and Owner of Windsor Metal Finishing, founded the company in 1992, when it became clear that Florida was in need of

superior quality finishing solutions. Focusing on high-end hotels, beach front condominiums, and theme park resorts, Windsor's mission is to provide highly durable coatings that resist fading, chalking and loss of gloss for up to twenty years.

The "Green Building Movement" in Florida challenges businesses to operate in an environmentally responsible way. By adding innovations that decreased their use of solvents and lowered their air emissions, Windsor won the prestigious Governor's 2004 Council for Sustainable Florida Small Business Award.

Today, Windsor is the only custom coater in Florida, and one of only a few qualified powder coaters throughout the nation, licensed to apply the full lines of fluoropolymer coatings in compliance with the extensive requirements of the American Architectural Manufacturer's Association's (AAMA) Specification 2605-8. They have also been selected by Akzo Nobel to spearhead the application of a new fluoropolymer powder technology in the United States.

## Existing Equipment and Challenges

To reduce volatile organic compounds (VOCs) and accommodate customer demand, Windsor set out to upgrade their liquid coating plant to include powder coating services. But they didn't want to provide just any powder coating – they wanted to become the first Kynar 500® licensed powder coater in Florida. A Kynar 500 resin-based finish must meet strict guidelines and can only be applied by a powder applicator approved by the powder formulator. The applications must also meet stringent 2605 AAMA performance criteria, which include 4,000 hours of salt spray testing.

Windsor was seeking to provide the latest in the hyper-durable family of fluoropolymer coatings recently introduced by Akzo Nobel, Rohm and Haas and Spraylat Corporation. With these powders costing upwards of \$20.00 a pound, maximizing powder application efficiency was a top priority in the upgrade.

Windsor's upgrade also had additional goals, including:

- Repeatability and consistency
- Reduced waste disposal costs
- Comprehensive training for personnel

## New Equipment Installed

ITW Gema installed a 12,000 cfm cartridge-style booth with powered roll-on/roll-off capability. This feature gives Windsor the ability to use the same conveyor for both the existing liquid and new powder lines. The booth was designed to enable Windsor to reclaim powder, reducing waste and saving money. To facilitate dust-free delivery of new powder into the system, a Fresh Feed Powder System (FPS) was included. The FPS moves powder from the manufacturer's container to the hopper with minimal air, creating less dust at the exit point for a cleaner operation.

Because of the extremely large nature and varying shapes of the parts, a manual operation was determined to be the best solution. Three EasySystem™ touch-up units with OptiTronic™ controls were mounted on the interior of the booth. Platforms were built inside the booth, enabling operators to easily coat the tops of even the tallest parts.

## Savings

Windsor has gradually been reducing their liquid coating business and increasing the amount of powder coating. This shift has resulted in savings for Windsor in the following areas:

- Precise application technology with the OptiTronics, coupled with dust-free powder conveyance of the FPS unit, allows Windsor to cover 55% more square footage with the same amount of powder
- An increase in powder business and a reduction in the number of liquid painting hours has saved Windsor over \$50,000.00 annually in hazardous waste, filter disposal and energy costs
- Extensive training from ITW Gema's ServiceNet™ team has enabled Windsor's employees to achieve the application expertise necessary to operate the system at peak efficiency, minimizing expensive mistakes and rework costs

## Future Outlook

Upgrading their business to include a powder coating system from ITW Gema allows Windsor to keep an eye on the future. As the architectural building market continues to demand hyper-durable coatings, Windsor expects powder coated products to become the first choice of architects, and Windsor is well-prepared to meet this demand.

When asked if Windsor would purchase from ITW Gema again, Malcom Brant replied, "Absolutely! This day and age when people really do what they say they're going to do, it's a big surprise. ITW Gema keeps their promises."

