

Out-of-the-box capabilities delivered a model (digital twin) incorporating 90% of the business requirements.

CHALLENGE

Owens Corning wanted a single scheduling solution for two distinct businesses that eliminated legacy tools and addressed unique business challenges.

SOLUTION

Both the roofing and insulation divisions standardized on Aspen Plant Scheduler models (digital twins) using a phased deployment approach.

BENEFITS

Owens Corning implemented Aspen Plant Scheduler in 12 weeks or less per business for all sites. In addition, the new tool allowed the company to:

- Create a feasible schedule in minutes
- Determine the best options for large changes in supply or demand
- Visualize projected inventory curves to trim production as needed
- Reduce risk with a phased deployment approach and short implementation time



Owens Corning develops, manufactures and markets insulation, roofing and fiberglass composites. Global in scope and human in scale, the company's market-leading businesses use their expertise in materials, manufacturing and building science to develop products and systems that save energy and improve comfort in commercial and residential buildings. They were founded in 1938 and have been a Fortune 500® company for 61 consecutive years.

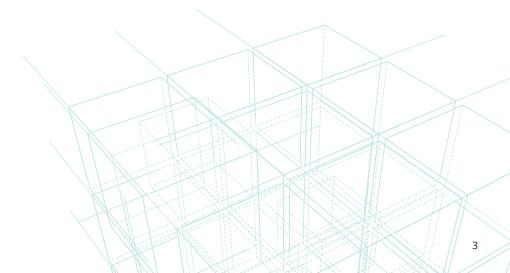
Owens Corning's goal was to implement a scheduling solution for its roofing and insulation manufacturing businesses that eliminated legacy tools and addressed some distinct business challenges.

Insulation-specific challenges:

- Minimize raw materials waste when manufacturing different insulation SKUs
- Determine the best co-products to produce to meet demand and minimize excess trim
- Schedule long runs that promote steady-state operations and reduce the need for changeovers

Roofing-specific challenges:

- Modify scheduling settings for products as well as for periods of supply
- Use a product wheel for the sequencing of products that consider changeover considerations in the setup mix





Owens Corning selected Aspen Plant Scheduler based on its built-in scheduling and task sequencing capabilities and user-friendly interface. In addition, the software could easily be configured to address Owens Corning's business process requirements. With a short implementation time of 12 weeks, Owens Corning considered this project a low-risk investment with immediate results.

Implementing Aspen Plant Scheduler Software

During implementation, schedulers and business users helped define requirements for roofing and insulation businesses. As a result, Aspen Plant Scheduler's configuration incorporated common constraints across all businesses, such as sequence-dependent setups, as well as site-specific requirements such as co-products that are unique to a particular business. This allowed multiple business units to deploy a standard solution with a library of features that could be activated or deactivated to meet the needs of the business.

After the initial rollout of Aspen Plant Scheduler, Owens Corning needed two additional capabilities for the roofing models: ABC scheduling and sequencing via a manufacturing wheel. The overall development time for the new functionality was less than 10 days. The company rolled out these revolutionary capabilities, including repeatable scheduling solutions, to all 14 roofing plants.

Business Benefits

Implementing Aspen Plant Scheduler has improved the scheduling activities of the roofing and insulation business processes — from automating data management through optimizing the production schedule.

Roofing-Specific Benefits:

- Solve different versions of optimal production based on current business conditions (planned levels vs. sold out)
- Change period of supply for sequences due to exceptions like major capital project downtime
- Elevate scheduling quality control and ensure compliance with business policies due to visualization capabilities

Insulation-Specific Benefits:

- Create a unique list of SKUs that minimize excess trim while meeting order constraints
- Produce process orders in SAP for each SKU in a combo, seamlessly
- Model shared resources (labor, shrink wrap machine, etc.)

Life with Aspen Plant Scheduler

Before using Aspen Plant Scheduler, a lack of visibility into the schedule created a "ring of fire" scenario where the scheduler was constantly making tradeoffs between requests from different stakeholders.

Now, the scheduler can easily analyze and answer questions from different groups:

- **Sourcing**: Can you adjust your schedule due to a supplier issue?
- **Sales**: Can you prioritize my customer before anyone else?
- **Shift Leads**: The plant is 12 hours behind and we can't catch up. Will you adjust the schedule?
- **Key Customers**: Can I have a truck in 2 days versus my 14-day lead time guarantee?

AspenTech's domain expertise, ability to use an out-of-the-box solution to model 90% of Owens Corning's different business requirements, and rapid implementation approach that enabled deployment of 14 roofing models in 12 weeks and 12 insulation models in 8 weeks are unique capabilities that separate AspenTech from other supply chain vendors.

"The scheduler can now create a daily schedule much more rapidly without the need for spreadsheets. They always have the right data at the right time, so they can spend more time on analytics and problem solving."

- Bill Rose, Supply Chain Leader, Owens Corning

About Aspen Technology

Aspen Technology (AspenTech) is a leading software supplier for optimizing asset performance. Our products thrive in complex, industrial environments where it is critical to optimize the asset design, operation and maintenance lifecycle. AspenTech uniquely combines decades of process modeling expertise with machine learning. Our purpose-built software platform automates knowledge work and builds sustainable competitive advantage by delivering high returns over the entire asset lifecycle. As a result, companies in capital-intensive industries can maximize uptime and push the limits of performance, running their assets faster, safer, longer and greener.

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