

# EMD PERFORMANCE MATERIALS

NEW PHILADELPHIA HEADQUARTERS

CertainTeed substitution saves the schedule, the budget and the day in innovative office project

**CASE STUDY**



EMD Performance Materials Headquarters | Photo credit: Mel Evans

Philadelphia's Navy Yard, a 1,200-acre waterfront campus on the Delaware River, is a collision of storied past and dynamic present: It served as the birth place of the U.S. Navy in the 1770s and is a magnet for cutting-edge businesses today.

One of the newest additions to this campus' mix of historic brick structures and glass office towers is a cleverly designed LEED Gold certified building constructed in 2016 at 1200 Intrepid Avenue. As the first Philadelphia building designed by famed international firm Bjarke Ingels Group, the four-story structure is designed with a mesmerizing mix of angles and curves in a gesture resembling the bows of the massive decommissioned warships in the docks surrounding the Navy Yard. It's a design-forward aesthetic that provides the perfect new home for EMD Performance Materials, which moved into the first and third floors in late 2017.

## Designing for Inspiration and Control

As the North American high-tech materials business of Merck KGaA, Darmstadt, Germany, EMD Performance Materials ("EMD") offers a robust portfolio of applications in fields such as consumer electronics, semiconductors, lighting, coatings, printing technology, plastics, and cosmetics. The work EMD employees undertake day in and day out demands a flexible, high-performance environment that can accommodate everything from lab research to business strategizing to accounting and facilitate the need for solo work, small group collaboration and large meetings.

"We were looking for a space that was innovative, inspiring and promotes advancing technology," EMD communications manager Alisha Davis says of the group's search for its new home.



Ecophon® Solo™ Clouds | Photo credit: Mel Evans

Inside, the third-floor office is an airy, open floor plan with an abundance of collaborative, free-form spaces. Enormous, 10-foot vertical windows dominate the perimeter, leaning outward with the building's curved east-facing facade; rows of desks are occasionally interrupted by collaborative work areas; a small handful of glass-walled offices line select sides of the floor plan; and a tiered ceiling sprawls above it all.

In envisioning the space, Herbst-Musciano, LLC and HF Planners, the architectural team who designed EMD's office inside 1200 Intrepid, aimed for an openness and functionality that served EMD's collaborative spirit.

"We wanted unobstructed views and floating ceilings," says architect Gary Musciano, "and getting the ceilings as high as possible."

*"The ceilings were the single contributor to acoustic attenuation because we didn't have many partitions, and the partitions we do have are glass, so the ceilings do all the work acoustically."*

**- Gary Musciano, architect  
Herbst-Musciano, LLC**

The largely open floor plan indeed feels inspiring. But the design and building materials

used to construct it had to function so that small groups collaborating at a table area would not disrupt the workflow of individuals working at desks nearby. That meant one of the biggest design challenges was controlling acoustics. And one of the most effective ways to achieve an acoustically sound office environment is through ceiling products specifically designed to absorb and block sound.

"The ceilings were the single contributor to acoustic attenuation because we didn't have many partitions, and the partitions we do have are glass," Musciano says. "So the ceilings do all the work acoustically."

The design team created a specially designed ceiling in varying sections. Over the main portion of the office, the ceiling consists of a grid of unconventional 1' x 8' narrow-reveal panels from which tiers of strategically placed frameless 4' x 4' clouds hang freely to absorb ambient noise. Smaller sections of ceilings called for 4' x 4' clouds to be suspended from beams at gradually increasing angles that ascend up the walls into the ceiling in a beautiful wave-like effect that captures resonant sound vibrations. "With that," explains Jeremy Kramer of Blas Construction, the subcontractor responsible for the ceiling installation, "there was a challenge in finding the right product."

The element of acoustic control, coupled with how the product would function aesthetically in a three-dimensional space, added a level of complexity that demanded more than a standard panel and grid ceiling solution—this installation needed a product that would control sound but also look attractive from any and all angles.

Adding to the challenge, the team also faced an aggressive 12-week timeframe for phase one of construction, which included the ceiling installation. An installation of this size would typically be budgeted for 15 to 17 weeks. But EMD's move, combined with the scheduling demands of other project phases, meant the ceiling had to be installed swiftly.

## Re-thinking the Specs

Herbst-Musciano had originally specified a competitor's products for the entire ceiling. The unconventional angling of the free-hanging clouds, however, meant that both sides of many of them would be in full view, and this revealed a significant flaw with the original product.

"The original products specified weren't finished on the back and there was an upcharge to finish the back," Kramer notes. Moreover, finishing the backs would've meant a longer lead time to get them—extra time the Blas team did not have for installation in the aggressive project schedule.



Ecophon® Solo™ Clouds | Photo credit: Mel Evans

**PROJECT**  
EMD Performance  
Materials headquarters

**LOCATION**  
1200 Intrepid Avenue  
The Navy Yard  
Philadelphia, Pennsylvania

**SIZE**  
21,000 square feet

**PRODUCTS**  
Ecophon® Solo™  
Symphony® f  
Symphony® m Rx

**ARCHITECT**  
Herbst-Musciano, LLC

**DESIGNER**  
HF Planners

**CONTRACTOR**  
Blasz Construction



*Symphony™ m | Photo credit: Mel Evans*

Kramer worked with Sherrie Stewart, acoustical sales manager for building materials distributor Builders FirstSource, to recommend an alternative manufacturer: CertainTeed. CertainTeed's Ecophon® Solo™ and Symphony® lines provide acoustic performance and elegant visual appeal, and the Solo line of clouds and baffles are manufactured with both faces finished. Regardless of their free-hanging orientation, Solo clouds and baffles show a clean, finished surface when viewed from any angle, and their ease of installation is an added attraction for contractors.

“We pushed for CertainTeed for that reason,” Kramer says, “and we were able to switch out the entire line of products.”

That switch also included CertainTeed's Symphony *m* Rx

line for the suspended ceiling in EMD's research and development labs, which occupy a portion of the third floor and additional space on the first floor. In the labs, controlling sound is one issue. Cleanliness is another. Performance materials research can get loud and messy. Symphony *m* Rx is the durable, easy-to-clean cousin of the Symphony line, used for just such applications.

### **The Right Ceiling for the Space**

The new CertainTeed specification met Herbst-Musciano's architectural and aesthetic goals while staying within budget. The result is a ceiling structure that feels lofty and sculptural, juxtaposed with acoustic control that belies the vastness of the space.

“This space reflects an innovative culture which is critical to our business.” Says Theodore Rothermich, Head of Business Operations and Project Lead, EMD, “The ceiling aesthetic is beautiful while functionally contributing to our open, collaborative environment.”

Overall, Musciano was well satisfied with the with the change in specification.

“We really had to hang our hat on the performance of the ceiling,” he says. “CertainTeed had good systems that helped us achieve the structure of floating ceiling panels—and it was an available system. We didn't have to look too hard or invent things. We had all the componentry from CertainTeed, just by the way the products are manufactured.”

**View ceiling product details, design tips and inspirational videos at [CertainTeed.com/Ceilings](https://www.certainteed.com/Ceilings)**

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