

AMAZON SPHERES

At its corporate headquarters in downtown Seattle, Washington, Amazon has set a new standard for “green” office space, where ideas and flora flourish in a trio of glass-enclosed sphere-shaped buildings with structural steel shells protected by a fluoropolymer coating system from Tnemec.

“The interior workspace surrounds employees with a waterfall, trees and thousands of plants from around the world,” according to Scott McConnell, coating consultant for TNW, Inc. in Seattle. “As soon as the building is closed down at night, the humidity is increased to 85 percent, then it drops down to 60 percent during business hours. That is why they needed a coating system with long-lasting corrosion protection.”

McConnell worked closely with the project’s architectural firm, Seattle-based NBBJ, in specifying a low volatile organic compound (VOC) coating system with outstanding color and gloss retention in even the most severe environmental conditions.

“The project’s original specification called for a urethane topcoat, but because of the complexity of the environment with all of the plants, trees and waterfall inside, we changed the specification to a fluoropolymer coating system,” McConnell explained. “As it turned out, the change has been extremely beneficial.”

The fabricator spray-applied a prime coat of Series 90-97 Tneme-Zinc, a zinc-rich aromatic urethane coating, over steel that was prepared in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning.

After the steel was shipped to the site and assembled, the field applicator power-tool cleaned the weld seams and coated them with Series 94-H₂O Hydro-Zinc, a single-component aromatic urethane coating containing less than 100 grams per liter of VOCs.

Applicators completed the coating system with an intermediate coat of Series 27WB Typoxy, a water-based epoxy with exceptional durability and corrosion resistance, and the finish coat of Series 1072V Fluoronar, a low-VOC, fluoropolymer coating with outstanding color and gloss retention. Coatings were roller-applied in the field.

“Application of the coating system was flawless,” McConnell recalled. “The same coating system was used on the exterior metal of Amazon’s office building next to the Spheres, as well as on sculptures in a surrounding plaza.”

The project is part of a \$4 billion corporate headquarters complex for Amazon, which is the world’s largest online retailer and Seattle’s largest employer. When completed in 2021, the campus will span three city blocks and include three 37-story, high-rise towers and two mid-rise office buildings for a total of 3.3 million square feet.

FEATURED PRODUCTS

Series 27WB Typoxy
Series 90-97 Tneme-Zinc

Series 94-H₂O Hydro-Zinc
Series 1072V Fluoronar



PROJECT INFORMATION

Project Location
Seattle, Washington

Project Completion Date
February 2018

Owner
Amazon
Seattle, Washington

Architect
NBBJ
Seattle, Washington

Applicator
Purcell Paintings & Coatings
Seattle, Washington

Structural steel for the Amazon Spheres in Seattle, Washington, were coated using a Tnemec fluoropolymer coating system with outstanding color and gloss retention in even the most severe environmental conditions.

