

Blue Buffalo Manufacturing and R&D Facility

Richmond, IN, USA (2017)



PRODUCT USED:

Hard-Cem®

OWNER:

Blue Buffalo

ARCHITECT:

Design Group

ENGINEER:

ARW Engineers

GENERAL CONTRACTOR:

Shook Construction Co.

READY-MIX SUPPLIER:

Irving Materials, Inc.

BACKGROUND

To meet continued demand for their pet food, Blue Buffalo decided to build a new \$150 million manufacturing and research and development facility in Indiana. In response, their design team, Design Group, drew up plans for an almost 37,161-square meter (400,000-square foot) plant, which is now known as the second Blue Buffalo manufacturing facility in the United States of America.

During this process, the team quickly concluded that the facility's 28-megapascal (4,000-pound-per-square-inch) concrete floors would be subject to an extreme amount of abrasion from the forklifts and sliding skids that would be traveling across its surface multiple times each day. That would shorten the flooring's wear life, decrease its safety, and add to future repair costs for Blue Buffalo. To prevent that from happening and to ensure the flooring was safe and operational for workers, the team wanted a top-quality concrete hardening solution to increase their concrete's abrasion resistance.

SOLUTION

To provide that increased abrasion resistance, the team specified Hard-Cem, Kryton's integral hardening admixture. They then added it to a total of 5,074 m³ (6,636 yd³) of concrete. They also used the admixture for the entire interior slab-on-grade, which was 35,303 m² (380,000 ft²) and included the floors for the manufacturing and research and development areas. It was a good choice as Hard-Cem doubles the wear life of concrete and provides significant abrasion and erosion protection. It is also the best-in-class hardener for high-volume and high-traffic distribution facilities. That's because Hard-Cem's full-depth concrete hardening helps maintain the concrete's riding surface and reduces future repair and facility downtime. In the end, Hard-Cem was successful. Irving Materials, Inc., the ready-mix supplier of the construction team, reported that the admixture did well with the concrete mix design and was easy to place.

