

WATERBORNE ACRYLIC RESINS FOR PROTECTIVE COATINGS

CASE HISTORY:

The Battleship USS New Jersey

One of the most famous battleships in naval history is the USS New Jersey. The Battleship New Jersey was built at the Philadelphia Navy Yard starting in 1940. The ship was launched on December 7, 1942. After being commissioned on May 23, 1943, the USS New Jersey proceeded to the Pacific where she was involved in many of the operations of World War II. During its 50 year history, the battleship played a pivotal role in World War II, the Korean War, and the Vietnam War, and more recently provided support for

Marines in Beirut during the conflict in 1983-4. At a length of nearly 900 feet and a standard displacement of 45,000 tons, the USS New Jersey is a truly remarkable ship. It also has impressive armaments, with nine 16-inch guns that can fire shells with accuracy at distances greater than 20 miles, four Phalanx weapon systems for aircraft and missile defense, and while in active duty carried launchers for Tomahawk cruise missiles. During World War II, the ship carried a complement of more than 3000 men.

DETAILS OF PROJECT

SURFACE PREPARATION:

Power washing to remove flaking and loose paint

TOPCOAT:

1 coat of a waterborne acrylic topcoat based on a waterborne acrylic resin.

Painting done in July and August of 2001.



The Battleship USS New Jersey is currently a floating museum and docked on the waterfront in Camden, NJ.

SURFACE PREPARATION & COATING APPLICATION

In 1991, the USS New Jersey was decommissioned, and in 1999 it began its final voyage home to the site of the former Philadelphia Navy Yard. It was there that the ship underwent an extensive restoration, including a complete painting of both exterior and interior surfaces. Waterborne acrylic coatings were used in all cases, except for below the water line. Surface preparation for the exterior of the ship was minimal.

Power washing at 4000 – 5000 psi removed loose and flaking paint, and a single coat of waterborne acrylic paint was applied with airless spray. Most of the exterior surfaces were painted a gray color along with various trim. Painting was completed during July and August of 2001.

The exterior hull of the USS New Jersey is topcoated with a waterborne acrylic coating above the waterline.



PROJECT ASSESSMENT:

Today, the USS New Jersey is docked along the waterfront in Camden, New Jersey, and serves as a floating museum. As one of the Philadelphia areas major attractions, this magnificent ship now truly looks the part with a beautiful new paint job using waterborne acrylic coatings.



One of the three sets of 16-inch guns after painting in November 2001.

All exterior metal was painted with a gray waterborne acrylic topcoat.