

**PROJECT:**  
Phantom Jet Boat Hull  
Impact and Abrasion Protection

**LOCATION:**  
Clarkston, WA

**OWNER:**  
Aztec Fabrication

**SYSTEM:**  
K5™ Polyurea with AE-4  
(Adhesion Enhancer)  
100-120 mils

**TOTAL AREA:**  
Jet Boats Range  
from 18-24 ft in Size

**COMPLETION DATE:**  
March 2010

**PROBLEM:**

When it comes to shallow water aluminum boats, Phantom Jet Boats is truly a pioneer in the extreme boating industry. These shallow water aluminum boats are designed to literally go where other boats can't, including traveling at high speeds over rocks, sand bars, weeds, shoals and submerged trees. Taking boating to this extreme requires some serious boat hull protection. Any solution must be able to maintain good adhesion to the surface, withstand the harsh marine environment and provide superior abrasion resistance.

**SOLUTION:**

The boat manufacturer had previously used polyethylene (UHMW and HDPE) sheet liners. Unfortunately, these liners require drilling holes in the boat hull to fasten them, which increases the potential for water leaks. The sheet liners are also an expensive upgrade and take a considerable amount of time to install. The boat manufacturer was looking for a new solution that would offer a better value to their customers. Aztec Fabrications

chose SPI's K5™ ultra high-strength polyurea because of the products tremendous abrasion resistance and the ability to form a seamless membrane. This allows boat owners to avoid having holes drilled through their hull.

Each boat hull was abrasive blasted to achieve a minimum 4-mil anchor profile. The applicator spray applied 100 - 120 mils of SPI's K5™ polyurea with AE-4. The AE-4 adhesion enhancing admixture eliminates the need to use a primer.

**RESULTS:**

Aztec Fabrications and SPI underwent a two-year testing program on numerous boats. The coating has performed well and maintained great adhesion. The upgrade is 40% less costly than the UHMW and HDPE sheet liner and the boat can be returned back to the customer in half the time.

