



PROJECT REPORT SHEET:

# BluSeal Anchor Knob Sheet

DESALINATION PLANT, ADELAIDE



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## DESALINATION PLANT, ADELAIDE

The Adelaide Desalination Plant consists of two purpose built reverse-osmosis plants located in South Australia's Port Stanvac. The Adelaide Desalination Plant is capable of delivering 150GL of potable water per annum to the people of South Australia.

PROJECT COMPLETION: 2011  
CLIENT/END USER: BUILT ENVIRONS

### APPLICATION

#### WHERE WE USED BLUSEAL ANCHOR KNOB SHEET (AKS)

BluSeal AKS was used as a cast-in-situ system lining all internal concrete surfaces of the ultra-filtration tanks, which house filtration membranes used in the reverse-osmosis process. The Adelaide Desalination Plant also consists of Back-Flush, Permeate and Brine tanks that have also been lined with BluSeal AKS.

#### WHY WE USED BLUSEAL AKS

Due to the aggressive marine environment and unique chlorine and oxygen fluctuations present during the desalination process, all water bearing structures must be protected from desalinated water by an impermeable and repairable membrane liner. The membrane lining to all water bearing structures was selected by the Designers to provide unique protection against Clean In Place processes.

### FEATURES

- Potable water use approved in accordance with AS/NZS 4020:2005.
- High anchor pull-out strength further adding to extended design life of 50 years
- Requires low maintenance and is repairable throughout the operational life-cycle
- When installed, forms a fully welded homogeneous lining

### BENEFITS

- 12,000 square metres of 5mm Anchor Knob Sheet plus cover strips and welding rod were supplied to the project
- Using an approved installer; Anchor Knob Sheet was pre-installed on formwork prior to the formwork-shutters being lifted into place. This process ensured high levels of quality and saved both time and cost.
- The Project Design Consultants specified the use of AKS to meet the Project Deed nominated chemical resistance levels and a 50-year design life. It was accepted that by using 5mm AKS all chemical resistance levels could be exceeded. Being a high-density polyethylene, AKS was deemed to provide resistance to mechanical impact.

### SUMMARY

Throughout construction of the Adelaide Desalination Plant certified supervisors (DVS) ensured all BluSeal AKS was installed in accordance with International Standards. All project specified chemical resistance levels, design life and quality control measures were achieved.

