



Quantum Chemical

PRECIDIUM™
PROTECTIVE COATINGS
Innovation
It's all in the Chemistry!

CASE STUDY

PROJECT

Connacher Oil & Gas Limited Tank Farm

CONTRACTOR

Western Engineered Containment, Leduc, AB

PRODUCTS APPLIED

Precidium™ 645D zero VOC, two-component aromatic polyurea sprayed at 60-80 mils (average 70 mils) on Geotextile on the ground and **Precidium™ P-180D Primer** and **Custom Formulated Fire Retardant Polyurea** was used on the walls.



CHOSEN FOR PERFORMANCE

This large tank farm required 10,000 square meters of secondary containment liner and a properly installed **Precidium™ 645D/Geotextile** liner provides excellent secondary containment for a wide range of chemicals in all expected weather conditions. The liner has excellent puncture and tear resistance, has excellent green strength and remains flexible even in extreme cold. Exposure to UV light will cause discoloration and chalking of the surface but no significant reduction in physical properties or chemical resistance over the life of the liner.

Precidium™ 645D/Geotextile liners may be left exposed or covered with sand or gravel. For this project the base was filled with sand and the walls remained exposed. Damage to the liner can be easily repaired and the liner can be moved or extended or modified at any time by a properly trained contractor. The system is the preferred option where multiple protrusions and difficult configuration make installation of sheet liner materials difficult.



Plus it provides faster sealing to and around a wide range of materials. Also excellent adhesion to metal, wood, concrete, and composite materials is achieved by direct application or with an appropriate primer. The combination of the **Precidium™ 645D** green strength for colder temperatures and the fire retardant properties of the **Fire Retardant Polyurea** for the walls, quick installation, versatility and ease of modifications/repairs made this **Precidium™** liner system a high-performance solution.

INSTALLATION

The **Precidium™** Systems used with the Geotextile were installed according to the specifications contained in the “**General Standard: Precidium™ 650D/645D/550D-FR Geotextile Elastomeric Lining Systems**”, published by Quantum Chemical, which provides a detailed procedure. A summary follows. The **Precidium™ P-180D Primer** was used on the walls that were blasted prior to application. As portions of the walls would remain exposed and not be back filled with sand, it was important to apply the **Precidium™ Custom Formulated Fire Retardant Polyurea** to meet safety requirements for secondary containment. The geotextile fabric was applied as ground cover and coated at an average of 70 mils with **Precidium™ 645D**.



Snow and icy ground made conditions less than ideal so areas being coated were heated under tarps for 20 minutes prior to application. Sections of geotextile may also be pre-coated prior to installation – allowing 6 inches of uncoated geotextile around all edges to provide a seam. The geotextile terminated at all berms and protrusions and the **645D** continued up the protrusion/berm to provide a positive seal. The **Precidium™ 645D** was cured to foot traffic in minutes, though a twenty-four hour cure time is recommended before putting the liner into service.