

Concrete Protection Liner

Concrete structure for containment and treatment of waste, effluent, sewerage and corrosive material is subjected to deterioration under aggressive environment. Concrete protection lining seals concrete surface from harmful contact.

Concrete protection liner is a flexible geomembrane that has studs or ribs on one side which lock the liner to the surface of concrete. It is virtually an impermeable integral in-situ durable coating that is permanently keyed into the structure.

Material

PVC Polyvinyl chloride or HDPE high density polyethylene, thickness of 1 – 5 mm, roll width 1.3 – 2.0 m x 20 – 75 m length. It can be tailored to fit structure dimension and welded to form an integral impermeable cover layer. The material has been approved by DSD, EPD and CEDD.



Concrete Protection liner in roll

Application

- Sewer pipe
- Sewerage treatment plant
- Effluent containment
- Waste handling
- Aeration system
- Organic digester
- Bio-gas tank
- Waterproofing



T-keyed liner



T-Keyed liner on timber formwork



Studliner



Studliner on formwork

Concrete protection liner has to be pre-fixed onto the formwork (by nailing, clipping or adhesion). After concreting, the liner is attached to the concrete. Formwork is then removed; all exposed liner will be reinstated by heat tacking/welding along jointing edges and patching over penetrations to form a continuous impermeable protective surface. Spark testing is used to detect defects across the entire surface, pinpointing area for repair. Pipe and other penetrations follow proprietary detailing.

Characteristics of Concrete Protection Liner

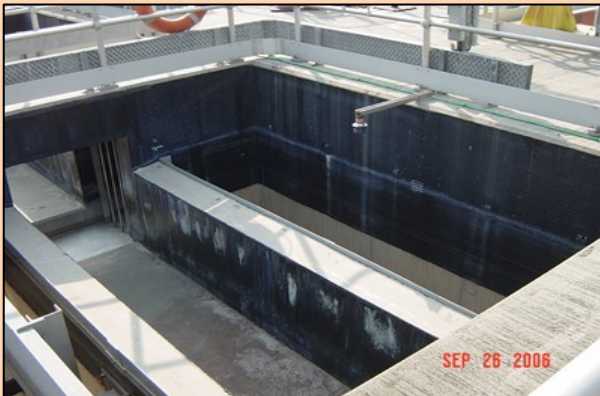
- Durable to contain effluent
- Higher abrasive resistance
- Strong adhesion to concrete, no pull out
- Relief of back pressure from concrete crack
- High strength that bridges concrete crack
- Long design life of 100 years
- Simple maintenance and re-welding repair



HATS Stage 2A, Upgrading Works at Stonecutter Island Sewage Treatment Works, DC/2009/10, May 2015



HAT Scheme Stage 2A, Upgrading Works at Stonecutters Island Sewage Treatment Facilities, DC/2009/17, October 2011



Outlying Islands Sewerage, Siu Ho Wan, DC/99/10, September 2006



Ting Kau and Sham Tseng Sewerage, DC/2006/14, May 2008



Upgrading Works at Stonecutters Island Sewage Treatment Works, DC/2009/18, September 2015

