The Liner Company

SOLUTIONS

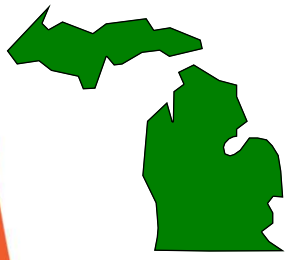
ENVIRONMENTAL PROTECTION, INC.

1567 W. South Airport Rd.
Traverse City, Michigan
49686

Phone | 800-OK-LINER
Fax | 231-943-2270

www.geomembrane.com

UltraTech® For Parking Lot Run-off Containment



Problem: The Michigan Department of Transportation garage in Reed City, Michigan was faced with a problem involving a containment basin, which had originally been lined with asphalt. This basin collects water run-off from the parking lot area surrounding the salt storage building and the storage of road sanding equipment. Used on a regular basis during the winter months to provide road sanding operations, the containment collects water run off from the main parking lot, the service department floor drains, and a soon to be added parking lot drain. Therefore, there is potential for other problem materials entering the containment.

Solution: UltraTech, pre-fabricated for one piece installation. Originally constructed as part of the building development of the MDOT facility, the containment reservoir was asphalt over a geotextile fabric. In a relatively short period of time, the asphalt liner began to dry out and separate, forming cracks and openings in the membrane allowing water to escape. Subsequent repairs were not sufficient to alleviate the continued cracking of the asphalt liner.

EPI proposed to provide a non-woven geotextile fabric over the existing asphalt liner, to cushion a new geomembrane from potential damage by the aggregate already in the lagoon. UltraTech was recommended on the basis of its primary performance criteria: conformability, weatherability and compatibility. The conformability of the liner allowed it to adapt to the various irregularities in the subgrade. UltraTech's ability to conform around these irregularities insures that the liner will provide many years of service.

The weatherability characteristic of the UltraTech liner also ensures that exposure to the severe climate of Northern Michigan, which involves successive freeze/thaw cycles in the winter months and the potential for high ambient temperatures in the summer months, will not be detrimental. The ability to withstand the effects of exposure to sunlight ensures that this exposed liner will provide the service required.

The compatibility of the UltraTech geomembrane liner with the various products it could potentially be exposed to is the final key to its selection for this project.

The size of the containment allowed that the UltraTech liner could be fabricated in one very large section, in order to totally eliminate the requirement for field seaming. All welding of the liner material was done in the factory, under controlled conditions, and under the direction of trained quality control personnel. After delivery to the project site, the geotextile underliner was sewn in place, and the liner placed in the containment and secured, all in a period of approximately 4 hours. This savings in time and equipment was significant to the cost of the project. The installation, completed in the summer of 1989, will be monitored on a continual basis.

Preserving water resources for future generations

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