



Approval # 20060003  
(Renewal for 980055-U)

Environmental & Regulatory Services Division  
Bureau of Petroleum Products and Tanks  
201 West Washington Avenue  
P.O. Box 7837  
Madison, WI 53707-7837

## Wisconsin COMM 10 Material Approval

Equipment: Poly-Flex HDPE Dike Liner

Manufacturer: Poly-Flex, Inc.  
2000 West Marshall Drive  
Grand Prairie, TX 75051

Expiration of Approval: December 31, 2009

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### SCOPE OF EVALUATION

The Poly-Flex High Density Polyethylene Dike Liner manufactured by Poly-Flex, Inc. has been evaluated for use as a synthetic dike liner in accordance with **s. Comm 10.345** of the current edition of the Wisconsin Administrative Flammable and Combustible Liquids Code. Poly-Flex is approved for use in the State of Wisconsin with all petroleum products, ethanol and petroleum/ethanol blends subject to the limitations listed below.

This approval has been based upon Commerce evaluation of information submitted by the manufacturer and third party evaluation and is considered confidential. Specific

information relating to qualifying the information submitted should be made to the manufacture or submitter.

This evaluation summary is condensed to provide the specific installation and operational parameters necessary to maintain the subject systems in compliance with the Wisconsin Administrative Code – Comm 10.

### **DESCRIPTION AND USE**

The Poly-Flex Liner is made of high-density polyethylene. Approved thicknesses are 60, 80 and 100 mils. It can be provided in widths up to 22.5 feet. Seams are made by a heat fusion method, either by a hot shoe welder or by an extrusion welder. When installed over compacted soil, the ends of the liner are anchored in a trench. The trench must have rounded edges to avoid sharp bends in the liner.

Mechanical attachment to concrete may be achieved by using stainless steel fittings and neoprene gaskets. Neoprene caulk provides a liquid-tight adhesive attachment between gaskets and fittings. Another attachment method is the Poly-Lok channel. Poly-Lok is 125 mil thick, formed HDPE which is cast into concrete to provide a weldable anchoring surface.

### **TESTS AND RESULTS**

TRI/Environmental, Inc., conducted chemical compatibility testing on Poly-Flex before and after immersion in unleaded gasoline, JP-5 jet fuel, and ethanol. Specimens were tested before immersion, immediately after 7 days of immersion and after 7 days of immersion followed by 12 hours in a drying oven. In all cases, the physical property changes were within acceptable limits established by the department.

### **LIMITATIONS / CONDITIONS OF APPROVAL**

- Poly-Flex, with a minimum thickness of 60 mils, is approved as meeting the requirements of **s. Comm 10.345 (1)(e)** when installed and tested in accordance with manufacturer's specifications. The soil layers above and below the liner, normally required under **s. Comm 10.345 (1) (e) 2.**, are not required when installed and maintained in accordance with manufacturer's specifications.
- Field seams shall be oriented down a slope rather than across a slope.
- All installation, repair and maintenance of the dike liner shall be performed in accordance with the manufacturer's recommendation and all applicable codes. In addition, a qualified technician shall conduct all necessary maintenance and calibration procedures as recommended by the manufacturer to assure continued and proper operation of the liner.

This approval will be valid through December 31, 2009, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

**DISCLAIMER**

The Department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement unless specified in this document.

Effective Date: January 1, 2006

Reviewed by: \_\_\_\_\_

Greg Baretta, P. E.  
Engineering Consultant  
Bureau of Petroleum Products and Tanks

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_