



ENVIRONMENTAL PROTECTION, INC.

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Waves, Wrinkles, Folds...

Environmental Protection, Inc. has been continually researching the issue of folds in PVC geomembranes. Wrinkles and folds in polyethylene geomembranes are a significant problem. Not so with PVC!

The U.S Department of Interior, Bureau of Reclamation has done extensive research on the use of PVC geomembranes for canal construction in the United States. The Bureau's



technical document "Use of Geomembranes in Bureau of Reclamation Canals, Reservoirs, and Dam Rehabilitation" (REC-ERC-95-01) reports the results of the Bureau's research done on the "Effects of Folds on the

Performance of PVC Geomembranes".



Folding and wrinkling of PVC geomembranes may occur during construction, especially around curves. A laboratory study was conducted to study the effects of folds. Both folded and unfolded tear and tensile test specimens of 20 mil PVC were subjected to the following aging conditions:

1. Standard environment, 23° C (73° F), 50% relative humidity.
2. Water immersion, flowing tap water at 13°C (55° F)
3. Oven aging at 38° C (100° F)

The specimens were tested after 4, 13, 26 and 52 weeks of aging. Test results (summarized in a table in the report) indicate that **folds caused no adverse effects**. Before testing, the folded specimens were examined under 5X magnification, and no signs of cracking were observed.

For information on the performance of 30 year old buried 20 mil PVC geomembrane, visit our website and Liner Letter archive, or call us toll free at 800-655-4637.



Tips & Tricks