

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

**POND SEALING OR LINING
FLEXIBLE MEMBRANE**

1. Scope

The work shall consist of all construction activities and furnishing all materials as required by the construction plans and specifications for the installation of the flexible membrane.

2. Location

Location of the pond, water storage, or waste storage structure where the flexible membrane should be installed shall be as specified on the construction plans or as staked in the field.

3. Site Preparation

The area to be lined shall be drained and allowed to dry until the surface is firm and can support the personnel and equipment that must travel over the site during installation of the lining.

All banks and fills in the area to be lined must be sloped no steeper than 1 horizontal to 1 vertical (1:1) for exposed linings and 2.5:1 for buried liners. Use flatter slopes if recommended by the manufacturer.

The foundation area for flexible membrane linings shall be smooth and free of projections that can damage the lining. Stumps and roots shall be removed. Rocks, hard clods, and other such material shall be removed, rolled to provide a smooth surface, or covered with a cushion of fine soil.

If needed, an effective sterilant shall be applied to the subgrade at the rate recommended by the manufacturer.

An anchor trench shall be excavated completely around the area to be lined at the planned elevation of the top of the lining. The trench shall be a minimum of 8 to 10 inches deep and 12 inches wide or to the manufacturer's recommendations.

Geotextile padding material, if needed, shall be installed according to the manufacturer's recommendations

All lining material shall be free of damage or defects. Each package delivered to the job site shall bear the name of the material, the manufacturer's name or symbol, the quantity therein, and the needed documentation to determine if this material shall meet or exceed the specified parameters.

4. Placement

Membranes shall be loosely placed over the area to be lined. The liners shall be laid according to the manufacturer's recommendations and with enough slack for satisfactory results.

All field splices shall be made according to the manufacturer's recommended technique, using materials furnished for this purpose. The joints shall be watertight and capable of maintaining their integrity throughout the expected life of the lining.

The top of the lining shall be placed in the anchor trench and anchored with compacted backfill.

The flexible membrane may need to be covered. The material to be used as a protective cover shall be free of large clods, sharp rocks, sticks, and other objects that can puncture the lining. The cover shall be placed to the specified depth without damage to the membrane.

5. Materials

All materials shall meet the requirements as listed in the construction plans and construction details.

6. Measurement

Unless otherwise specified in the construction details, measurement shall be to the units shown in the construction plans.

7. Construction Details