



Designation: D 3745 – 95 (Reapproved 2000)<sup>e1</sup>

## Standard Practice for Installation of Prefabricated Asphalt Reservoir, Pond, Canal, and Ditch Liner (Exposed Type)<sup>1</sup>

This standard is issued under the fixed designation D 3745; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

<sup>e1</sup> NOTE—Editorially switched from English dominant to SI dominant.

### 1. Scope

1.1 This practice covers the description of suitable materials and procedures for installing prefabricated asphalt reservoir, pond, canal, and ditch liner (exposed type).

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- D 5 Test Method for Penetration of Bituminous Materials<sup>2</sup>
- D 6 Test Method for Loss on Heating of Oil and Asphaltic Compounds<sup>3</sup>
- D 36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)<sup>3</sup>
- D 92 Test Method for Flash and Fire Points by Cleveland Open Cup<sup>4</sup>
- D 113 Test Method for Ductility of Bituminous Materials<sup>2</sup>
- D 312 Specification for Asphalt Used in Roofing<sup>3</sup>
- D 2042 Test Method for Solubility of Asphalt Materials in Trichloroethylene<sup>2</sup>
- D 2643 Specification for Prefabricated Asphalt Reservoir, Pond, Canal, and Ditch Liner (Exposed Type)<sup>3</sup>
- D 2822 Specification for Asphalt Roof Cement<sup>3</sup>
- D 5295 Guide for Preparation of Concrete Surfaces for Adhered (Bonded) Membrane Waterproofing Systems<sup>3</sup>

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee D08 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.20 on Roofing Membrane Systems.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.03.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 04.04.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 05.01.

### 3. Terminology

3.1 There are no terms in this practice that require new or other dictionary definitions.

### 4. Significance and Use

4.1 The practices described are only for water bearing reservoirs, ponds, canals, and ditches.

### 5. Materials

5.1 The materials needed for the installation consist of the lining sheets, a joint sealant (either a hot-mopped asphalt or a cold-applied asphalt mastic type), and batten or cover strips for the joints between sheets; all of which are manufactured for compatibility to prevent exudation.

5.2 The lining sheets should conform to Specification D 2643.

5.3 The hot-mopped asphalt joint sealant should conform to one of the following specifications:

5.3.1 Specification D 312, Types II, III, or IV.

5.3.1.1 The choice of which type of roofing asphalt to use for a particular application will be influenced by climatic conditions and must be determined by the installer.

5.3.2 An asphalt manufactured to the requirements in Table 1.

5.3.3 *Test Methods*— The properties specified in Table 1 may be determined as follows:

5.3.3.1 *Flash Point*— Test Method D 92.

5.3.3.2 *Softening Point*— Test Method D 36.

5.3.3.3 *Penetration*— Test Method D 5.

5.3.3.4 *Ductility*—Test Method D 113.

5.3.3.5 *Weight Loss*— Test Method D 6.

5.3.3.6 *Asphalt Soluble in Trichloroethylene*—Test Method D 2042.

5.4 The cold-applied joint sealant should meet the requirements of Specification D 2822 and should have the approval of the manufacturer of the lining material.