



Standard Specification for Flooding Compounds for Telecommunications Wire and Cable¹

This standard is issued under the fixed designation D 4730; 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 (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers a variety of compounds used for flooding the shields and armors of telecommunications wires and cables (both electrical and fiber optic) for the purpose of preventing water and other undesirable fluids from entering or migrating along or through the cable sheath. (For related standards see Specifications D 4731 and D 4732.)

2. Referenced Documents

2.1 ASTM Standards:

- D 6 Test Method for Loss on Heating of Oil and Asphaltic Compounds²
- D 92 Test Method for Flash and Fire Points by Cleveland Open Cup³
- D 482 Test Method for Ash from Petroleum Products³
- D 1321 Test Method for Needle Penetration of Petroleum Waxes³
- D 3236 Test Method for Apparent Viscosity of Hot Melt Adhesives and Coating Materials⁴
- D 4565 Test Methods for Physical and Environmental Performance Properties of Insulations and Jackets for Telecommunications Wire and Cable⁵
- D 4568 Test Methods for Evaluating Compatibility Between Cable Filling and Flooding Compounds and Polyolefin Wire and Cable Materials⁵
- D 4731 Specification for Hot-Application Filling Compounds for Telecommunications Wire and Cable⁵
- D 4732 Specification for Cool-Application Filling Compounds for Telecommunications Wire and Cable⁵
- E 28 Test Method for Softening Point by Ring-and-Ball Apparatus⁶

3. Terminology

3.1 Descriptions of Terms Specific to this Standard:

¹ This specification is under the jurisdiction of ASTM Committee D-9 on Electrical and Electronic Insulating Materials and is under the direct responsibility of Subcommittee D09.18 on Solid Insulations, Non-Metallic Shieldings and Coverings for Electrical and Telecommunication Wires and Cables.

Current edition approved July 15, 1993. Published October 1993. Originally published as D 4730 – 87.

² Annual Book of ASTM Standards, Vol 04.04.

³ Annual Book of ASTM Standards, Vol 05.01.

⁴ Annual Book of ASTM Standards, Vol 05.02.

⁵ Annual Book of ASTM Standards, Vol 10.02.

⁶ Annual Book of ASTM Standards, Vol 06.03.

3.1.1 *flooding compounds*—any of several materials used to fill the air spaces between the sheath elements of single and multi-conductor insulated wires and cables or optical cables for the purpose of excluding water and other undesirable fluids; especially with regard to telecommunications wire and cable, including optical cable, intended for outside aerial or underground installations.

3.1.2 *producer*—the primary manufacturer of the material.

3.1.3 *suppliers*—jobbers and distributors as distinct from producers.

4. Ordering Information

4.1 Orders for material under this specification shall include the following information:

- 4.1.1 Quantity (mass or volume) of each item,
- 4.1.2 Generic name of the material, such as cable flooding compound,
- 4.1.3 How furnished (drums or barrels, blocks, etc.),
- 4.1.4 Certification, if required (see Section 11).
- 4.1.5 This specification designation, and
- 4.1.6 Any special requirements, as listed in 9.2, that apply.

5. Materials and Manufacture

5.1 The material and manufacturing methods used shall be such that the resulting products will conform to the properties and characteristics prescribed in this specification.

6. Compatibility with Other Materials

6.1 It is the responsibility of the purchaser to ensure that the flooding compound ordered is suitable for the intended application and is compatible with any other components that may come into contact with the flooding compound.

6.2 The purchaser shall specify the materials with which the compound must be compatible when tested in accordance with Test Method D 4568.

7. Chemical Composition

7.1 The chemical composition of these materials is not specified. The material may be of any chemical composition suitable for the intended purpose and which meets the requirements of this specification as hereinafter stated.

7.2 Once established, the producer shall not change the composition of the compound in successive lots of material without prior approval of the purchaser.