Designation: D 2604 – 86 (Reapproved 2000)

Standard Specification for High-Boiling Hydrocarbon Solvent for Preparing Oil-Borne Preservative Solutions[1]

This standard is issued under the fixed designation D 2604; 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 high-boiling hydrocarbon solvent for preparing solutions of oil-borne preservatives such as pentachlorophenol and copper naphthenate, and which shall be composed of petroleum distillates and cosolvents, provided that the blended solvent meets the requirements of Section 3.

2. Referenced Documents

2.1 *ASTM Standards:*

D 86 Test Method for Distillation of Petroleum Products[2]

D 93 Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester[2]

D 96 Test Methods for Water and Sediment in Crude Oil by Centrifuge Method (Field Procedure)[2]

D 270 Method of Sampling Petroleum and Petroleum Products[3]

D 287 Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)[2]

D 445 Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)[2]

D 2606 Test Method for Solubility of Pentachlorophenol in Heavy Hydrocarbon Solvents[4]

2.2 *AWPA Standard:*

P-9 Solvents and Formulations for Organic Preservative Systems[5]

3. Properties

3.1 High-boiling hydrocarbon solvent for preparing oil-borne preservative solutions shall conform to the following requirements:

Distillation:	
50 % volume distilling point, min° F	490
90 % volume distilling point, min° F	585
Viscosity of oil fraction undistilled above 500°F from 100-mL Method D 86 distillation:	
Kinematic, min, cSt at 100°F	3.46
Saybolt, min, SUS at 100°F	37.5
Flash point, Pensky-Martens closed tester, min, °F	150
Solubility, pentachlorophenol at 75°F:	
Minimum 90 g whole oil, g	10
Minimum in oil fraction undistilled above 500°F from a 100-mL Method D 86 distillation	6
Water, max %	0.5

4. Test Methods

4.1 The material shall be sampled and the properties enumerated in this specification shall be determined in accordance with the following ASTM methods:

4.1.1 *Sampling*—Method D 270.

4.1.2 *Distillation*—Test Method D 86.

4.1.3 *Viscosity*—Test Method D 445.

4.1.4 *Flash Point*—Test Methods D 93.

4.1.5 *Solubility, Pentachlorophenol*— Test Method D 2606.

NOTE 1—See also the applicable sections of Test Method D 287 (as referenced in AWPA P9-91).

4.1.6 *Water and Sediment*—Test Methods D 96.

5. Keywords

5.1 high-boiling; hydrocarbon; oil-borne

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[2] *Annual Book of ASTM Standards*, Vol 05.01.

[3] Discontinued; see *1983 Annual Book of ASTM Standards*, Vol 05.01.

[4] *Annual Book of ASTM Standards*, Vol 04.10.

[5] Available from the American Wood-Preservers' Assn., 3246 Fall Creek Highway, Suite 190, Granbury, TX 76049.