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Standard Specification for TEN-DEGREE XYLENE^{1, 2}

This standard is issued under the fixed designation D 846; 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.

This specification has been approved for use by agencies of the Department of Defense and for listing in the DoD Index of Specifications and Standards.

1. Scope

1.1 This specification covers ten-degree xylene.

2. Applicable Documents

2.1 ASTM Standards:

D 847 Test Method for Acidity of Benzene, Toluene, Xylenes, Solvent Naphthas, and Similar Industrial Aromatic³

D 848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons³

D 849 Test Method for Copper Corrosion of Industrial Aromatic Hydrocarbons³

D 850 Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials³

D 853 Test Method for Hydrogen Sulfide and Sulfur Dioxide Content (Qualitative) of Industrial Aromatic Hydrocarbons³

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)³

D 3437 Practice for Sampling and Handling Cyclic Products³

D 3505 Test Method for Density or Specific Gravity of Pure Liquid Chemicals³

E 1 Specification for ASTM Thermometers⁴

2.2 Federal Specification:

PPP-C-2020 Packaging of Chemicals, Liquid, Dry, and Paste⁵

3. Properties

3.1 Ten-degree xylene shall conform to the following requirements:

Appearance	clear liquid free of sediment or haze at 65 to 78°F (18.3 to 25.6°C)
Specific gravity, 15.56/15.56°C	0.860 to 0.875
Density, 20°C, g/cm ³	0.856 to 0.872

Color

not darker than 20 max on platinum-cobalt scale (Test Method D 1209)

Distillation range at 760 mm, Hg pressure:

Total distillation range
Initial distillation temperature (first drop)

not more than 10°C
not below 135°C

Dry point

not above 145°C

Acid wash color

not darker than No. 6 color standard

Acidity

no free acid; that is, no evidence of acidity

Sulfur compounds

free of H₂S and SO₂

Copper corrosion

copper strip shall not show iridescence nor a gray or black deposit or discoloration

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*—Practice D 3437.

4.1.2 *Appearance*—Visual inspection.

4.1.3 *Specific Gravity*—Test Method D 3505.

4.1.4 *Color*—Test Method D 1209.

4.1.5 *Distillation*—Method D 850 using an ASTM Solvents Distillation Thermometer 41C having a range from 98 to 152°C and conforming

¹ This specification is under the jurisdiction of ASTM Committee D-16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.0A on BTX, Cyclohexane, and Their Derivatives.

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² This material was formerly known as "10° xylol."

³ Annual Book of ASTM Standards, Vol 06.03.

⁴ Annual Book of ASTM Standards, Vols 03.04 and 05.03.

⁵ Single copies of Federal specifications are available from General Services Administration, 18th and F Streets, Washington, DC 20405.