



Standard Specification for Xylenes for *p*-Xylene Feedstock¹

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1. Scope *

1.1 This specification covers xylenes for *p*-xylene feedstock. These xylenes typically are extracted from reformat.

1.2 The following applies to all specified limits in this specification: for purposes of determining conformance with this specification, an observed value or calculated value shall be rounded off “to the nearest unit” in the last right hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E 29.

1.3 Consult current OSHA regulations, suppliers’ Material Safety Data Sheets (MSDS), and local regulations for all materials used in this specification.

2. Referenced Documents

2.1 ASTM Standards:

D 850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials²

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²

D 2306 Test Method for C₈ Aromatic Hydrocarbon Analysis by Gas Chromatography²

D 2360 Test Method for Trace Impurities in Monocyclic Aromatic Hydrocarbons by Gas Chromatography²

D 3437 Practice for Sampling and Handling Liquid Cyclic Products²

D 4045 Test Method for Sulfur in Petroleum Products by Hydrogenolysis and Rateometric Colorimetry³

D 4629 Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection³

D 5194 Test Method for Trace Chloride in Liquid Aromatic Hydrocarbons²

D 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry²

D 5808 Test Method for Determining Organic Chloride in Aromatic Hydrocarbons and Related Chemicals by Microcoulometry²

D 6069 Test Method for Trace Nitrogen in Aromatic Hydrocarbons by Oxidative Combustion and Reduced Pressure Chemiluminescence Detection²

D 6212 Test Method for Total Sulfur in Aromatic Compounds by Hydrogenolysis and Rateometric Colorimetry²

D 6313 Test Method for Total Sulfur in Aromatic Compounds by Hydrogenolysis and Sulfur Specific Difference Photometry²

D 6366 Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection²

D 6428 Test Method for Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative Combustion and Electrochemical Detection²

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

2.2 Other Document:

OSHA Regulations, 29 CFR, paragraphs 1910.1000 and 1910.1200⁵

3. Properties

3.1 Xylenes for *p*-xylene feedstock shall conform to the following requirements:

Property	Specification	ASTM Test Method
<i>p</i> -xylene, ^A min, weight %	18	D 2306
Ethylbenzene, ^A max, weight %	20	D 2306
Toluene, max, weight %	0.5	D 2360
C9 and higher boiling aromatic hydrocarbons, max, weight %	1.0	D 2360
Nonaromatic hydrocarbons, max, weight %	0.3	D 2360
Nitrogen, max, mg/kg	1.0 ^B	D 4629 or D 6069 or D 6366
Sulfur, max, mg/kg	1.0 ^C	D 4045 or D 6212 or D 6313 or D 6428
Appearance	D	...
Chloride	if needed	D 5194 or D 5808
Color, max, Pt/Co scale	20	D 1209 or D 5386

¹ This specification is under the jurisdiction of ASTM Committee D16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.01 on Benzene, Toluene, Xylenes, Cyclohexane, and Their Derivatives.

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² Annual Book of ASTM Standards, Vol 06.04.

³ Annual Book of ASTM Standards, Vol 05.02.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

*A Summary of Changes section appears at the end of this standard.

Distillation range, at 101.3 kPa (760 mm Hg) pressure, max, °C	5	D 850
Initial distillation temperature, min, °C	137	...
Dry point, max, °C	143	...

^D Clear liquid free of sediment and haze when observed at 18.3 to 25.6°C (65 to 78°F).

4. Sampling

4.1 The material shall be sampled in accordance with Practice D 3437.

5. Keywords

5.1 feedstock; *p*-xylene; xylenes

^A The *p*-xylene and ethylbenzene specifications represent the distribution of these components within the C₈ aromatics and not in the total sample.

^B Test Method D 6069 is the referee test method in case of dispute.

^C Test Method D 4045 is the referee test method in case of dispute.

SUMMARY OF CHANGES

Committee D16 has identified the location of selected changes to this standard since the last date of issue that may impact the use of this standard.

(1) Added alternative methods for nitrogen, Test Methods D 6069 and D 6366. Defined Test Method D 6069 as the referee method in case of dispute.

(2) Added alternative test methods for sulfur, Test Methods D 6212, D 6313, and D 6428. Defined Test Method D 4045 as the referee method in case of dispute.

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