



Designation: D 5211 – 00

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 reformate.

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

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 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.

D 5808 Test Method for Determining Organic Chloride in Aromatic Hydrocarbons and Related Chemicals by Micro-coulometry²

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	D 4629
Sulfur, max, mg/kg	1.0	D 4045
Appearance	^B	...
Chloride	if needed	D 5194 or D 5808
Color, max, Pt/Co scale	20	D 1209 or D 5386
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	...

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

^B 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

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.

SUMMARY OF CHANGES

Committee D-16 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 to Referenced Documents section, Test Methods D 5194 and D 5808. Chloride-if needed, referencing Test Methods D 5194 or D 5808.
- (2) Eliminated density specification in 3.1 and added

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