



Designation: D8005 – 15

## Standard Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)<sup>1</sup>

This standard is issued under the fixed designation D8005; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

### 1. Scope

1.1 This test method covers a procedure for the visual measurement of the color of near clear liquids. It is applicable only to materials in which the color-producing bodies present have light absorption characteristics nearly identical with those of the Platinum-Cobalt (Pt-Co) color standards used.

1.2 This test method has been found applicable to the color measurement of clear, liquid samples, free of haze, with nominal Pt-Co color values between 0 and 100. It is applicable to nonfluorescent liquids with light absorption characteristics similar to those of the Pt-Co color standard solutions. Test Methods [D1209](#), [D1686](#), and [D5386](#) deal with the visual and instrumental measurement of near-clear liquids.

1.3 In determining the conformance of the test results using this method to applicable specifications, results shall be rounded in accordance with the rounding off methods of Practice [E29](#).

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

[D1193](#) Specification for Reagent Water

[D1209](#) Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

[D1686](#) Test Method for Color of Solid Aromatic Hydrocar-

[bons and Related Materials in the Molten State \(Platinum-Cobalt Scale\)](#)

[D3437](#) Practice for Sampling and Handling Liquid Cyclic Products

[D5386](#) Test Method for Color of Liquids Using Tristimulus Colorimetry

[D6809](#) Guide for Quality Control and Quality Assurance Procedures for Aromatic Hydrocarbons and Related Materials

[E29](#) Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

#### 2.2 Other Documents:

OSHA Regulations, 29 CFR paragraphs 1910.1000 and 1910.1200<sup>3</sup>

### 3. Summary of Test Method

3.1 A specimen is placed in a Nessler tube and compared to a series of prepared Pt-Co standards.

### 4. Significance and Use

4.1 The major objective of the visual Pt-Co method of color measurement is to rate specific materials for yellowness. The yellowness is frequently the result of the undesirable tendency of liquid hydrocarbons to absorb blue light due to contamination in processing, storage, or shipping.

### 5. Apparatus

5.1 *Spectrophotometer*, equipped for liquid samples and for measurements in the visible region.

5.1.1 The spectrophotometer used must be clean and in first-class operating condition. The instrument should be calibrated in accordance with the instructions in the Standards for Checking and Calibration of Spectrophotometers (200 to 1000 cm).<sup>4</sup>

5.2 *Spectrophotometer Cells*, matched having a 10-mm light path.

5.3 *Color Comparison Tubes*—Matched 100-mL, tall-form Nessler tubes, provided with ground-on, optically clear, glass

<sup>1</sup> This test method 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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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

<sup>4</sup> See NIST Circular LC-1017.