



Designation: D6698 – 24

Standard Test Method for On-Line Measurement of Turbidity Below 5 NTU in Water¹

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1. Scope

1.1 This test method is applicable to the on-line measurement of turbidity under 5 nephelometric turbidity units (NTU) in water.

1.2 It is the user's responsibility to ensure the validity of this test method for waters of untested matrices.

1.3 In this test method calibration standards are defined in NTU values, but other assigned turbidity units are assumed to be equivalent.

1.4 This test method assigns traceable reporting units to the type of respective technology that was used to perform the measurement. Units are numerically equivalent with respect to the calibration standard. For example, a 1 NTU formazin standard is also equal to a 1 FNU (formazin nephelometric units) standard, a 1 FNRU (formazin nephelometric ratio units) standard, and so forth.

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

1.6 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This test method is under the jurisdiction of ASTM Committee D19 on Water and is the direct responsibility of Subcommittee D19.03 on Sampling Water and Water-Formed Deposits, Analysis of Water for Power Generation and Process Use, On-Line Water Analysis, and Surveillance of Water.

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2. Referenced Documents

2.1 ASTM Standards:²

- D1129 Terminology Relating to Water
- D1193 Specification for Reagent Water
- D2777 Practice for Determination of Precision and Bias of Applicable Test Methods of Committee D19 on Water
- D3370 Practices for Sampling Water from Flowing Process Streams
- D3864 Guide for On-Line Monitoring Systems for Water Analysis
- D7315 Test Method for Determination of Turbidity Above 1 Turbidity Unit (TU) in Static Mode

2.2 Other Standards:

- EPA 180.1 Methods for Chemical Analysis of Water and Wastes, Turbidity³
- GLI Method 2 Analytical Method for Turbidity Measurement⁴
- Hach Method 8195 Determination of Turbidity by Nephelometry EMMC Format⁴
- ISO 7027 Determination of Turbidity⁵
- Standard Method 2130B Turbidity by Nephelometry⁶

2.3 Other Documents:

- U.S. Patent 4,283,143 Patterson, James A. 1981. Optical Characterization of a Suspension. United States Patent 4,283,143, filed November 19, 1979, and issued August 11, 1981.⁷

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from United States Environmental Protection Association (EPA), Ariel Rios Bldg., 1200 Pennsylvania Ave., NW, Washington, DC 20460, <http://www.epa.gov>.

⁴ Available from Hach Company, P.O. Box 389, Loveland, CO, 80539-0389, <http://www.hach.com>.

⁵ Available from International Organization for Standardization (ISO), 1 rue de Varembé, Case postale 56, CH-1211, Geneva 20, Switzerland, <http://www.iso.ch>.

⁶ Available from Standard Methods for the Examination of Water and Wastewater, 21st Edition, American Public Health Association, Washington, DC, 2005, <http://www.standardmethods.org>.

⁷ Available from AMCO Clear, P.O. Box 245, Powell, OH, 43065, <http://www.amcclear.com>.