



Designation: D4285 – 83 (Reapproved 2018)

Standard Test Method for Indicating Oil or Water in Compressed Air¹

This standard is issued under the fixed designation D4285; 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.

1. Scope

1.1 This test method is used to determine the presence of oil or water in compressed air used for abrasive blast cleaning, air blast cleaning, and coating application operations.

1.2 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 *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.* For specific hazard statements, see Section 4.

1.4 *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.*

2. Significance and Use

2.1 Clean compressed air is required to prevent contamination of coating materials and surfaces being prepared for coating. This test method is a visual examination technique for determining oil or water in compressed air. Other types of contamination may require additional analytical techniques for detection.

3. Apparatus and Materials

3.1 *Absorbent Collector*, such as white absorbent paper or cloth and rigid backing for mounting absorbent collector, or

3.2 *Nonabsorbent Collector*, such as rigid transparent plastic, approximately $\frac{1}{4}$ in. thick.

¹This test method is under the jurisdiction of ASTM Committee D33 on Protective Coating and Lining Work for Power Generation Facilities and is the direct responsibility of Subcommittee D33.05 on Application and Surface Preparation.

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4. Cautions

4.1 To avoid false indications prior to testing:

4.1.1 Allow compressed air system to reach operating conditions, and

4.1.2 Allow air to discharge at operating conditions to remove accumulated condensation in the system.

4.2 Fasten the collector material to the rigid backing.

Precaution: Avoid personal contact with the air stream.

5. Sampling

5.1 Conduct the test on discharging air as close to the use point as possible and after the inline oil and water separators.

6. Procedure

6.1 Use either the absorbent or nonabsorbent collector.

6.2 Position the collector within 24 in. of the air-discharge point, centered in the air stream.

6.3 Adjust air discharge so that the collector remains intact during the test. Allow air to discharge onto the collector for a minimum of 1 min.

6.4 Visually examine the collector for the presence or absence of oil or water, or both.

7. Interpretation of Results

7.1 Any indication of oil discoloration on the collector shall be cause for rejection of the compressed air for use in abrasive blast cleaning, air blast cleaning, and coating application operations.

7.2 Any indications of water contamination on the collector shall be cause for rejection of the compressed air for use in those applications where water is detrimental, such as abrasive blast cleaning, air blast cleaning, and coating application operations.

8. Precision and Bias

8.1 No precision or bias statement has been established for this test method.

9. Keywords

9.1 compressed air; oil and water in compressed air