



Designation: **D7393 – 07 (Reapproved 2012) D7393 – 16**

Standard Practice for Indicating Oil in Abrasives¹

This standard is issued under the fixed designation D7393; 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 practice is used to determine the presence of oil in abrasives used for abrasive blast cleaning.
- 1.2 The procedure can be used in the laboratory, ~~field or~~ field, blast and paint shop or steel fabrication shop.
- 1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.
- 1.4 *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:*²

[D4940 Test Method for Conductimetric Analysis of Water Soluble Ionic Contamination of Blast Cleaning Abrasives](#)

2.2 *SSPC Standards:*³

~~SSPC-AB1~~ [SSPC-AB 1 Mineral and Slag Abrasives](#)

~~SSPC-AB2~~ [SSPC-AB 2 Cleanliness of Recycled Ferrous Metallic Abrasive](#)

~~SSPC-AB3~~ [SSPC-AB 3 Ferrous Metallic Abrasive](#)

~~SSPC-AB 4~~ [Recyclable Encapsulated Abrasive Media](#)

3. Summary of Practice

3.1 A sample of the abrasive is placed in a container, covered with water and vigorously shaken. The presence of an oil sheen or oil drops on the surface is cause for rejection of the supply of abrasive being tested.

4. Significance and Use

4.1 Oil in abrasives can be transferred to the surface being cleaned, thus contaminating it. This can cause film defects, affect adhesion of the coating applied over it, and the ultimate performance of the coating system.

4.2 Oil in abrasives is one of the cleanliness tests required for mineral and slag abrasives in ~~SSPC-AB1~~, SSPC-AB 1, for recycled ferrous abrasives in ~~SSPC-AB2~~, and SSPC-AB 2, for new ferrous abrasives in ~~SSPC-AB3~~, SSPC-AB 3, and for recyclable encapsulated abrasive media in SSPC-AB 4.

4.3 Other contaminants in abrasive such as chemical contaminants or particulate matter require other methods for detection such as Test Method [D4940](#) for conductive-potential, ionic contaminants. ~~The~~ Because Test Method [D4940](#) specifies a different ratio of abrasive to water is different for this test, so the solution from evaluating the and requires the use of higher purity water, the solution resulting from the evaluation of the oil in abrasive should ~~shall~~ not be used for the evaluation in accordance with Test Method [D4940](#).

5. Apparatus and Materials

5.1 *Container*—Clear jar or bottle capable of holding 250 ml (8.5 fl oz) or more and with a lid that is capable of sealing the contents.

¹ This practice is under the jurisdiction of ASTM Committee [D01](#) on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee [D01.46](#) on Industrial Protective Coatings.

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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~~ standard's Document Summary page on the ASTM website.

³ Available from Society for Protective Coatings (SSPC), ~~40 24th St., 6th Floor, 800 Trumbull Drive, Pittsburgh, PA 15222-4656~~, 15205, <http://www.sspc.org>.