



Designation: D7674 – 10

Standard Test Method for Hexane/Petroleum Ether Extract in Wet Blue and Wet White¹

This standard is issued under the fixed designation D7674; 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 (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This test method covers the quantitative extraction of all types of wet blue and wet white with hexane or petroleum ether.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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 and health practices and determine the applicability of regulatory limitations prior to use.* For a specific hazard statement, see Section 7.

2. Referenced Documents

2.1 *ASTM Standards:*²

D3495 Test Method for Hexane Extraction of Leather

D6658 Test Method for Volatile Matter (Moisture) of Wet Blue by Oven Drying

D6659 Practice for Sampling and Preparation of Wet Blue for Physical and Chemical Tests

E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method

E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods

3. Summary of Test Method

3.1 A specimen is analyzed as received in wet state, diced; or pre-dried at the determined setting then ground prior to analysis. The prepared specimen is extracted with solvent. Another specimen from the same sample is also analyzed for moisture content in accordance with Test Method D6658. Following completion of the extraction process, the extract is dried, then cooled and weighed. The extract is reported as extractables on a moisture-free basis.

¹ This test method is under the jurisdiction of ASTM Committee D31 on Leather and is the direct responsibility of Subcommittee D31.02 on Wet Blue.

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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 Document Summary page on the ASTM website.

4. Significance and Use

4.1 This test method measures the amount of solvent-soluble (hexane or petroleum ether) materials in wet blue and wet white.

5. Apparatus

5.1 *Analytical Balance.*

5.2 *Extraction Apparatus*—Soxhlet, consisting of a boiling flask, extraction tube, and condenser. Alternate Extraction Apparatus: Soxtec-type system consisting of an extraction unit and a control unit.

5.3 *Forced Circulating Air Oven*, capable of maintaining the specified temperature.

5.4 *Electric Hot Plate* (or steam bath).

5.5 *Extraction Thimbles*, fat-free: cellulose, Alundum, glass microfiber, or fritted glass.

5.6 *Absorbent Cotton*, fat-free, or glass wool.

6. Reagents and Materials

6.1 *Hexane*, ACS Reagent Grade, or

6.2 *Petroleum Ether*, ACS Reagent Grade.

7. Hazards

7.1 All reagents and chemicals should be handled with care. Before using any chemical, read and follow all safety precautions and instructions on the manufacturers' label or MSDS (Material Safety Data Sheet).

8. Sampling

8.1 The wet blue or wet white shall be sampled in accordance with Test Method D6659.

9. Procedure

NOTE 1—Two sample conditions are listed below. Both sample conditions produce acceptable results (See Precision and Bias section).

9.1 *Condition A*—As received in wet state, diced (prepared per Test Method D6659 Method A).

9.1.1 Weigh out specimen for both moisture and hexane/petroleum ether extraction at the same time. For the hexane/petroleum ether extraction, weigh an 8-10 g specimen to the nearest 0.001g and record this value as W1. Loosely pack the material in an appropriately sized extraction thimble and cover