



Designation: D4899 – 99 (Reapproved 2016)

Standard Practice for Analysis of Vegetable Tanning Materials—General¹

This standard is issued under the fixed designation D4899; 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 intended for use in the chemical analysis of all vegetable tanning materials.

1.2 The values stated in SI 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- D4900 Test Method for Lignosulfonates (Sulfite Cellulose) in Tanning Extracts
- D4901 Practice for Preparation of Solution of Liquid Vegetable Tannin Extracts
- D4902 Test Method for Evaporation and Drying of Analytical Solutions
- D4903 Test Method for Total Solids and Water in Vegetable Tanning Material Extracts
- D4904 Practice for Cooling of Analytical Solutions
- D4905 Practice for Preparation of Solution of Solid, Pasty and Powdered Vegetable Tannin Extracts
- D6401 Test Method for Determining Non-Tannins and Tannin in Extracts of Vegetable Tanning Materials
- D6402 Test Method for Determining Soluble Solids and Insolubles in Extracts of Vegetable Tanning Materials
- D6403 Test Method for Determining Moisture in Raw and Spent Materials
- D6404 Practice for Sampling Vegetable Materials Containing Tannin

- D6405 Practice for Extraction of Tannins from Raw and Spent Materials
- D6406 Test Method for Analysis of Sugar in Vegetable Tanning Materials
- D6407 Test Method for Analysis of Iron and Copper in Vegetable Tanning Materials
- D6408 Test Method for Analysis of Tannery Liquors
- D6409 Practice for Color Tests with Sheepskin Skiver
- D6410 Test Method for Determining Acidity of Vegetable Tanning Liquors

2.2 ALCA Methods:

- A1 Analysis of Vegetable Tanning Materials—General³
- A5 Extraction of Raw and Spent Materials³
- A6 Moisture in Raw and Spent Materials³
- A10 Preparation of Solution of Liquid Extracts³
- A11 Preparation of Solution of Solid, Pasty, and Powdered Extracts³
- A12 Cooling of Analytical Solutions³
- A13 Evaporation and Drying of Analytical Solutions³
- A20 Total Solids and Water³
- A21 Soluble Solids and Insolubles³
- A22 Non-Tannins and Tannin³
- A25 Analysis of Tannery Liquors³
- A30 Sugar in Tanning Materials³
- A31 Copper and Iron in Tanning Materials³
- A40 Color Tests with Sheepskin Skiver³
- A50 Lignosulfates (Sulfite Cellulose)³
- A60 Official Certification³
- J10 Sampling of Vegetable Materials Containing Tannin³

2.3 Federal Specification

- DD-V-582 Volumetric Apparatus, Glass⁴

3. Significance and Use

3.1 Vegetable tanning materials are natural products containing various substances of varying composition, concentration and quality.

¹ This practice is under the jurisdiction of ASTM Committee D31 on Leather and is the direct responsibility of Subcommittee D31.01 on Vegetable Leather. This practice has been adapted from and is a replacement for Method A1 of the Official Methods of the American Leather Chemists Association.

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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.

³ Official Methods of the American Leather Chemists Association. Available from the American Leather Chemists Association (ALCA), University of Cincinnati, P.O. Box 210014, Cincinnati, OH 45221-0014.

⁴ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.