



Designation: D 6409 – 99

Standard Practice for Color Tests with Sheepskin Skiver¹

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1. Scope

1.1 This practice covers making color tests of all types of vegetable tanning extracts and of vegetable tanning materials to determine the color imparted to tanned skins.

1.2 The values given in SI units are to be regarded as the standard. The inch-pound units 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.*

2. Referenced Documents

2.1 ASTM Standards:

- D 1517 Definitions of Terms Relating to Leather²
- D 4901 Practice for Preparation of Solution of Liquid Vegetable Tannin Extracts²
- D 4905 Practice for Preparation of Solution of Solid, Pasty, and Powdered Vegetable Tannin Extracts²
- D 6405 Practice for Extraction of Tannins from Raw and Spent Materials²

2.2 ALCA Methods:

- A40 Color Tests with Sheepskin Skiver³

3. Terminology

3.1 Definitions:

3.1.1 For definitions of general leather and tanning terms used in this practice refer to Definitions D 1517.

3.1.2 *pickled skiver*—a sheepskin skiver that has been pickled in a solution of salt and sulfuric acid.

3.1.3 *sheepskin skiver*—the grain split of a de-wooled sheepskin. A pickled skiver is used for this test.

¹ This practice is under the jurisdiction of ASTM Committee D-31 on Leather and is the direct responsibility of Subcommittee D31.01 on Vegetable Leather. This test method has been adapted from and is a replacement for Method A40 of the Official Methods of the American Leather Chemists Association. Current edition approved May 10, 1999. Published August 1999.

² *Annual Book of ASTM Standards*, Vol 15.04.

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

3.1.4 *tannin*—an astringent substance found in the various parts of plants such as bark, wood, leaves, nuts, fruits, roots, etc.

3.1.5 *vegetable tannins*—mixtures of substances (natural products) obtained from plant tissues by water extraction which have the chemical and physical properties necessary to convert animal hides and skins into leather.

4. Summary of Practice

4.1 A specimen of pickled skiver is tanned with a sample of vegetable tanning liquor in order to determine the color which will be imparted to a clear, clean hide or skin that is tanned with this tanning liquor.

5. Significance and Use

5.1 This practice provides a standard procedure for comparing the color of leather tanned with different tanning extracts or mixtures of extracts or for monitoring the color consistency of tannery liquors.

6. Apparatus and Reagents

6.1 *Pickled Sheepskin Skiver*, specially and consistently selected for the color test.

6.2 *Borax*, commercial grade such as may be used in a tannery.

6.3 *Containers*, 10 and 3 L capacity and made of suitable material to be resistant to the chemicals and materials used in the tanning procedure employed by this practice.

6.4 *Acetic Acid*, glacial, commercial grade.

6.5 *Sodium Acetate*, crystal, commercial grade.

6.6 *Sodium Chloride*, crystal, commercial grade.

6.7 *Shake Bottles*, 0.95 L (32 oz), with rubber stoppers. The bottles shall be approximately 21.6 cm (8.5 in.) overall height and 8.9 cm (3.5 in.) diameter. One quart canning jars (Mason-type) with plastic screw-on lids work well.

6.8 *Shaking Machine*, rotating type, equipped to hold 0.95 L (32 oz) bottles for end-over-end agitation of hide powder and analytical solution. The speed of rotation shall be 60 ± 2 rpm, and the machine shall be so constructed that the side of the shake bottle adjacent to the rotating shaft shall be not less than 5.1 cm (2 in.) nor more than 7.6 cm (3 in.) from the center of the shaft.