



Designation: D 1467 – 89 (Reapproved 1995)^{ε1}

Standard Guide for Testing Fatty Acids Used in Protective Coatings¹

This standard is issued under the fixed designation D 1467; 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.

^{ε1} NOTE—Keywords were added editorially in May 1995.

1. Scope

1.1 This guide covers the selection and application of procedures for testing fatty acids such as cottonseed, linseed, soybean, dehydrated castor, tall oil, etc. used in protective coatings.

1.2 The test methods included are listed as follows:

Test Method	Section	ASTM Test Method
Acid Value	4	D 1980
Appearance	13	D 1544
Ash	9	D 1951
Clarity	13	D 2090
Color:		
Gardner	14	D 1544
Platinum-Cobalt	14	D 1209
Color Change After Heating	6	D 1981
Fatty Acid Composition	12	D 1983
Hydroxyl Value	10	D 1957
Rosin Acids	11	D 1240
Sampling	3	D 1466
Saponification Value	7	D 1962
Titer	15	D 1982
Unsaponifiable Matter	8	D 1965
Unsaturation:		
Diene Value	5	D 1358
Iodine Value	5	D 1959

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 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²
- D 1240 Test Method for Rosin Acids Content of Naval Stores, Including Rosin, Tall Oil and Related Products³
- D 1358 Test Methods for Spectrophotometric Diene Value

¹ These methods are under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and are the direct responsibility of Subcommittee D01.32 on Drying Oils.

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² Annual Book of ASTM Standards, Vol 06.04.

³ Annual Book of ASTM Standards, Vol 06.03.

of Dehydrated Castor Oil and Its Derivatives³

D 1466 Test Method for Sampling Liquid Oils and Fatty Acids Commonly Used in Paints, Varnishes, and Related Materials³

D 1541 Test Method for Total Iodine Value of Drying Oils and Their Derivatives³

D 1544 Test Method for Color of Transparent Liquids (Gardner Color Scale)⁴

D 1951 Test Method for Ash in Drying Oils and Fatty Acids³

D 1957 Test Method for Hydroxyl Value of Fatty Oils and Acids³

D 1959 Test Method for Iodine Value of Drying Oils and Fatty Acids³

D 1962 Test Method for Saponification Value of Drying Oils, Fatty Acids, and Polymerized Fatty Acids³

D 1965 Test Method for Unsaponifiable Matter in Drying Oils, Fatty Acids and Polymerized Fatty Acids³

D 1980 Test Method for Acid Value of Fatty Acids and Polymerized Fatty Acids³

D 1981 Test Method for Measuring Color After Heating of Fatty Acids³

D 1982 Test Method for Titer of Fatty Acids³

D 1983 Test Method for Fatty Acid Composition by Gas-Liquid Chromatography of Methyl Esters³

D 2090 Test Method for Clarity and Cleanness of Paint and Ink Liquids³

D 3457 Test Method for Preparation of Methyl Esters from Fatty Acids for Determination of Fatty Acid Composition by Gas-Liquid Chromatography³

2.2 American Oil Chemists' Society (AOCS) Methods:⁵

- Tj-1a Polyunsaturated Acids
- Cc-13b Color, Wesson Method (Lovibond)
- Td-2a Photometric Index

3. Sampling

3.1 Sample the material in accordance with Test Method D 1466.

⁴ Annual Book of ASTM Standards, Vol 06.01.

⁵ Available from American Oil Chemists Society, 508 S. 6th St., Champlain, IL 61820.