



Standard Test Method for Collecting Gross Samples and Determining the Fuel Quality of RDF¹

This standard is issued under the fixed designation D 5115; 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.

INTRODUCTION

It is not possible to gather a sample of a multi-ton lot of refuse derived fuel (RDF) with assurance that the sample is representative of the lot. Therefore, this test method has been developed whereby a series of twenty samples are analyzed over the course of a month and the average of the results are an empirical estimate that is adequate to be used to represent the RDF production over that month. This test method may be used to ascertain RDF quality for purposes of contractual adjustment between producer and user.

1. Scope

1.1 This test method covers the procedure for collection of a series of 20 gross samples for analyses. The results of analysis, when averaged, are deemed representative of the lot or a production stream for a 1-month period.

1.2 This test method may be used to determine fuel quality on other than a monthly basis if 20 gross samples are gathered, analyzed and averaged.

1.3 The values stated in inch-pound 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. Specific hazard statements are given in Section 7.*

2. Referenced Documents

2.1 ASTM Standards:²

E 711 Test Method for Gross Calorific Value of Refuse-Derived Fuel by a Bomb Calorimeter

E 790 Test Method for Residual Moisture in a Refuse-Derived Fuel Analysis Sample

E 791 Test Method for Calculating Refuse-Derived Fuel Analysis Data from As-Determined to Different Bases

E 829 Test Method for Preparing RDF Laboratory Samples for Analysis

E 830 Test Method for Ash in the Analysis Sample of Refuse-Derived Fuel

E 856 Definitions of Terms and Abbreviations Relating to Physical and Chemical Characteristics of Refuse-Derived Fuel

E 954 Test Method for Packaging and Shipping of Laboratory Samples of Refuse-Derived Fuel

E 955 Test Method for Thermal Characteristics of Refuse-Derived Fuel Macrosamples

3. Terminology

3.1 *Definitions*—The definitions covered in Definitions E 856 are applicable to this test method.

4. Summary of Test Method

4.1 Twenty gross samples on RDF are taken at intervals over a 1-month period and sent to the laboratory for analysis.

4.2 The analysis results are averaged to establish the fuel quality of RDF for the month.

5. Significance and Use

5.1 This test method is available to producers and users of RDF as a means of determining thermal characteristics of RDF produced over a 1-month production period for purposes of contract adjustment.

¹ This test method is under the jurisdiction of ASTM Committee D34 on Waste Management and is the direct responsibility of Subcommittee D34.06 on Recovery and Reuse.

Current edition approved May 21, 1990. Published July 1990.

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.

