BIDCARBON™

Sampling and Test Procedures for Prepackaged products

made under the
Biochar Trade Measurement (Packaging) Requirements

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Division 1.1—Definitions

1. Name of Specifications

This Sampling and Testing Procedures may be cited as the Sampling and Test Procedures for Prepackaged products.

2. Definitions

For further explanations of terms see General Information for Test Procedures.

(1) ***AQS mark*** has the meaning given by section 1.2 of the Biochar Trade Specifications.

(2) ***AQS biochar*** means a prepackaged product for biochar that has a predetermined constant nominal quantity and is marked with the AQS mark.

(3) ***Biochar Trade Requirements*** means the Biochar Trade Measurement (Packaging) Requirements.

(4) ***BITP 6*** means the BidCarbon Instrument Test Procedures for Non-automatic Weighing instruments, which describe the step-by-step process for verifying measuring instruments and inspecting pre-packaged products.

(5) ***characters*** includes letters, figures and symbols.

(6) ***external auditor*** has the meaning given by section 1.2 of the Biochar Trade Specifications.

(7) ***inspection lot*** means a collection of prepackages that:

- (a) are available for inspection at the same time and place; and
- (b) are of the same kind; and
- (c) have the same predetermined quantity; and
- (d) either:
  - (i) are produced or imported at the same time; or
  - (ii) if it is not possible for an external auditor to determine a single production time—are selected by the external auditor;

from which a sample of prepackages is drawn for testing in accordance with AQS test procedures.

Note: An inspection lot is also known as a batch.

(8) ***measurement marking*** means the marking of measurement required by these Requirements to be made on a prepackaged product.

(9) ***nominal quantity*** means the quantity of the product in a prepackage that is declared on the label by the packer.

Note 1: The symbol "Q_n" is used to denote the nominal quantity.

Note 2: The nominal quantity is declared in accordance with OIML Recommendation 79, *Labelling Requirements for Prepackaged Products (1997)*.

(10) ***OIML*** means the International Organization of Legal Metrology (Organisation Internationale de Métrologie Légale, OIML), 11, rue Turgot, F-75009 Paris, France. WEB Site: http://www.oiml.org.

(11) ***packing material***, in relation to a prepackage:

- (a) means the part of the prepackage that is meant to be left over after use of the product (including subjecting the product to a treatment); but

(b) does not include items that occur naturally in the product.

Note: Packing material is also known as individual package, tare, packaging or packaging material. It is generally used to contain, protect, handle, deliver, preserve, transport, inform about and serve as an aid while using the product it contains.

(12) ***prepackage*** has the meaning given by section 1.2 of the Biochar Trade Specifications.

(13) ***prepackaged product for biochar*** means biochar that has been processed to a saleable quality.

(14) ***prepackaged product*** has the meaning given by section 1.2 of the Biochar Trade Specifications.

(15) ***principal display panel***, in relation to a package, means the part of the package that is most likely to be displayed under normal and customary conditions of display.

(16) ***tolerable deficiency*** or T has the meaning given by section 1.2 of the Biochar Trade Specifications.

Note: The tolerable deficiency is also known as the tolerable negative error.

(17) ***weighted average quantity*** see section 6.4.

3. Scope

(1) This Sampling and Testing Procedures describes the procedures used by external auditor for the inspection of prepackages to ensure their compliance with the marking requirements and to ensure the actual contents of a prepackaged product are within the tolerable deficiencies specified in the Biochar Trade Requirements.

(2) Four test methods are described to measure the contents of prepackaged products:

(a) gravimetric mass method (section 9.1);

(b) gravimetric volume method (section 9.2);

(c) mass per unit method (section 9.3);

(d) counting method (section 9.4).

4. Equipment

Record details of the reference standard used on the test report.

All equipment detailed below is in reference to the relevant test method.

(1) Appropriate reference standards of measurement:

(a) Test of control instrument:

(i) Reference weight (to test the control instrument up to 110% of the combined mass of the product and, where applicable, all equipment used in the relevant test method. See section 8.1.1 for further details).

(b) gravimetric volume method:

(i) volume measure (to determine the density of the sample to an accuracy equal to or better than 0.05% of the total volume measured).

(2) All reference standards of measurement shall comply with the uncertainties and variations permitted in:

(a) the Measuring Instruments Regulations 2016; or

(b) a foreign law that corresponds to a law mentioned in paragraph (2)(a).

(3) Suitable weighing instrument (hereinafter referred to as a control instrument for determining the mass of a prepackage (for gravimetric mass and mass per unit methods) and the mass of a measured volume (for gravimetric volume method). See section 8.1.1 for suitability requirements for the control instrument.

(4) Materials to clean and dry prepackaged products.

(5) Test reports (see Appendix A).

5. Visual Inspection

Before examining and testing products it is important an assessment of the product being measured is undertaken to determine the necessary safety precautions. This may include handling of a hazardous product or managing the testing environment to reduce any identified risks.

Examine the prepackage and where applicable request relevant information (Material Safety Data Sheet, production/importation documentation) from the trader as needed and record the data on the test report.

Visually inspect the prepackaged product and determine if:

- all the required data; and
- the applicable characteristics of the prepackaged product are correctly marked.

Where required, record details on the test report (Appendix A).

5.1. Required Data

(1) Inspection details:
  (a) test report reference number
  (b) date of inspection
  (c) name of external auditor
  (d) name of trader
  (e) address of trader.

(2) Product details:
  (a) product description
  (b) batch number or use-by/best before date
  (c) nominal quantity
  (d) packer identification
  (e) AQS mark (if applicable)
  (f) unit price of product
  (g) selling price of product – may also be marked on the shelf or on an invoice.

(3) Test details:
  (a) location of test (e.g. packer, retailer or wholesaler)
  (b) place of sampling (AQS only)
  (c) production run size
  (d) maximum hourly production or importation quantity (AQS only).

(4) Measurement details:
  (a) inspection lot size
  (b) sample size
  (c) measurement method.

5.2. Characteristics of the Prepackaged Product

Where applicable the prepackaged product shall comply with the following sections:

(1) The prepackaged product shall be marked with the name and address of the person who packed the product or on whose behalf it was packed.

(2) The name and address on the prepackaged product shall be readily visible, legible and enabling the person who packed the product or on whose behalf the product was packed to be identified and located.

(3) The nominal quantity shall be marked on the prepackaged product.

(4) The measurement statement shall be clear, concise, readily seen and easy to read.
The measurement statement shall be on the principal display panel.

Note: This is not applicable for standard wine bottles and packaging for automotive parts.

(5) The measurement marking shall contain a measurement statement in an appropriate unit of measurement and exclude fractions.

(6) The prepackaged product shall be marked with a price per kilogram and total price.

(7) The '*e*' mark shall be at least 3 mm high, close in position to the stated quantity and in the same field of vision.

(8) The characters specifying the measurement statement characters shall comply with the relevant size.

6. AQS Sampling and Deficiencies

The following sampling and deficiencies are limited to prepackaged products that are packed in accordance with AQS.

Note: When an AQS mark is marked anywhere on a package, regardless of when or by whom the AQS mark was made, this Sampling and Testing Procedures shall be applied to determine if the group of prepackaged products are compliant.

6.1. Threshold and Tolerable Deficiency

The tolerable deficiency appropriate for the nominal quantity of the prepackaged product is given in Table 1 of Schedule 2 of the Biochar Trade Specifications.

Thresholds for inspection lots are given in Table 2 of Schedule 2 of the Biochar Trade Specifications, where:

(1) n is the number of prepackaged products in the sample;

(2) c is a statistical factor to account for variation in the sample; and

(3) T is the tolerable deficiency.

6.2. Screening Procedure

(1) To avoid unnecessary testing of prepackaged products a screening test can be used to reduce the time required to carry out testing and potentially reduce the amount of destructive testing that may be required.

(2) For screening purposes it is only necessary to determine the actual quantity in a sample size of 20 prepackaged products.

6.2.1. Screening Inspection Lot Assessment

A screening inspection sample is considered to be acceptable if:

- the mean of the sample is equal to or greater than Q_n;
- no more than one package in the sample is found to have a T_1 error; and
- no packages are found to have a T_2 error.

Where the screening sample is found to be unacceptable, the testing shall be carried out with the sample size as defined in Table 2 of Schedule 2 of the Biochar Trade Specifications.

6.3. Sampling Procedure

Ideally AQS sampling is performed at the place of packing, storage/distribution facility or place of importation.

When prepackaged products are inspected at a retailer, a screening inspection is recommended (see section 8.2). If the prepackaged products in the screening test are found to be unacceptable, further testing is required at a location where an adequate inspection lot can be found (e.g. at the manufacturer/importer).

Selected prepackaged products are required to be:

- of the same kind; and
- marked with the same measurement marking.

(1) Determine the maximum hourly output of the production line or the total number of packages imported at the same time. If this output is:

  (a) equal to or greater than 10 000 packages, the inspection lot size shall be 10 000

  (b) equal to or greater than 100 and is less than 10 000 packages, the inspection lot size is equal to the maximum hourly output of the production line or total number of packages imported at the same time

  (c) less than 100, the inspection lot size is equal 100

  (d) unknown, then the inspection lot size shall be 10 000 or if 10 000 packages are not available all the available packages.

(2) Prepackaged products shall be selected by random sampling from the inspection lot.

6.4. Inspection Lot Failure

(1) An inspection lot is considered to have a shortfall if:

- the ***weighted average quantity*** of the prepackage products in the sample is less than Q_n;
- the sample has more T_1 errors than permitted in Table 2 of Schedule 2 of the Biochar Trade Specifications; or
- the sample has one or more T_2 errors.

Weighted Average Quantity

(2) The weighted average quantity (Q) in a sample is determined using the following formula:

$$Q = \bar{x} + (s \times c)$$

where:

Q is the weighted average quantity of the packages in a sample.

$\bar{x}$ is the sample mean calculated in accordance with subsection (3).

s is the standard deviation of the sample calculated in accordance with subsection (4).

c is the sample correction factor in Table 2 of Schedule 2 of the Biochar Trade Specifications.

(3) The sample mean ($\bar{x}$) is calculated in accordance with the following formula:

$$\bar{x} = \sum x \div n$$

where:

$\bar{x}$ is the sample mean.

$\sum x$ is the sum of the quantities of all of the packages in the sample.

n is the number of packages in the sample.

(4) The standard deviation of the sample (s) is determined in accordance with the following formula:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

where:

s is the standard deviation of the sample.

x is the quantity of each package in the sample.

$\bar{x}$ is the sample mean calculated in accordance with subsection (3).

n is the number of packages in the sample.

(5) The sample correction factor (c),—

(a) in the case of the minimum sample size being selected, is as set out in column 3 of Table 2 of Schedule 2 of the Biochar Trade Specifications for the number of packages in the lot of packages as set out in column 1 of that table; or

(b) in the case of more than the minimum sample size being selected, is the amount determined in accordance with the formula set out in column 2 of Table 5 of Schedule 2 of the Biochar Trade Specifications for the number of packages in the lot of packages as set out in column 1 of that table.

7. Non-AQS Sampling and Deficiency

7.1. Sampling Procedure

The sample size of prepackaged products that are not packed in accordance to AQS is dependent on the number of prepackaged products available:

- if 12 or more are available, then the minimum sample size shall be 12;
- the sample size may be more than 12 at the discretion of the external auditor;
- if more than 6 and less than 12 packages are available, then the sample size shall be all the packages available; and
- if less than six are available and the original production run was less than six, each package is tested as a single article.

Note: If there are less than seven packages available for examination (of the same kind and marked with the same measurement marking), and the number of packages in the production run is determined to be more than 6 by the external auditor, a non-compliance in relation to shortfall cannot be established.

Selected prepackaged products are required to be:

- of the same kind; and
- marked with the same measurement marking.

Note: Where possible this should include packages from the same batch. Alternatively, record the separate batch numbers for each package.

7.2. Group Test Failure

For the sample sizes determined by section 7.1, non-AQS shortfall occurs when:

- the average quantity of the sample is less than Q_n; or
- any one package is deficient by more than 5% of Q_n.

7.3. Single Article Test Failure

For single articles, which include random weight products, a failure occurs when the measured quantity is less than Q_n.

8. Standard Procedures

8.1. Control Instrument

A control instrument is used to determine the weight of the prepackaged product as well as the mass of a liquid when determining the density of the product in the *gravimetric volume* method (see section 9.2).

8.1.1. Suitability

A suitable control instrument for weighing the packages shall:

- be a non-automatic weighing instrument;
- have a scale interval that is equal to or less than:
  - 0.2% of Q_n for determining the mass of the package and contents; or
  - 0.1% of the gross mass of the density sample when determining the density; or
  - 0.05% of the net mass of the package when determining the mass per unit.
- be capable of having standard weights deposited on the load receptor; and
- have a maximum capacity at least 10% greater than the gross weight of the prepackage product or density sample.

8.1.2. Testing the Control Instrument

(1) The control instrument shall be tested immediately before and after any product testing.

(2) It is not necessary to test the instrument to its maximum capacity. It is sufficient to test the instrument up to the relevant maximum as detailed below:
  (a) 110% of the largest gross weight of the package;
  (b) 110% of the largest gross weight of the density sample;

(3) If the control instrument has zero tracking, disable the zero tracking function.

(4) Test the control instrument in accordance with BITP 6 for the following tests:
  (a) weighing performance;
  (b) eccentricity at 1/3 max;
  (c) repeatability at 2/3 max.

  Note that 'max' during this test means:
  (i) 110% of the largest gross weight of the package;
  (ii) 110% of the largest gross weight of the density sample;

(5) Record the equipment used and the results.

(6) The instrument shall not have an error (MPE or MPD) exceeding the following values:
  (a) weighing performance, MPE = 0.5 d;
  (b) eccentricity at 1/3 max, MPE = 0.5 d;
  (c) repeatability at 2/3 max, MPD = 1 d.

8.1.3. Performance Testing

(1) A weighing performance test shall be repeated regularly, at least every hour during measurements to ensure the on-going accuracy of the instrument.

(2) The instrument shall not have an error exceeding the MPE or MPD specified in section 8.1.2.

(3) If the instrument has an error exceeding the MPE or MPD, the instrument shall be calibrated.

(4) Where the accuracy of the control instrument has been observed to deviate, calibration and retesting shall occur more regularly and if the problem continues, an alternate instrument shall be used.

(5) The prepackaged articles weighed after the last known correct performance test for the instrument shall be disregarded from the test results and reweighed.

8.2. Tare Weight

(1) When determining the tare weight of a prepackage, it is desirable to utilise non-destructive tests where practical and open the least number of prepackages required to satisfy the test procedures. For this reason, it is recommended the unused tare method be used whenever possible.

(2) When calculating the tare weight, check all packing material in the sample to ensure the packaging is the same and does not vary in size or composition between packages being inspected.

(3) Five tare weights shall be obtained.

Note: The tare weight may be determined before or after determining the gross mass of the prepackage. This timing will impact on whether a gross weight will be required to be determined in section 8.2.2.

8.2.1. Unused Tare

An unused tare is determined at the place of packing where the unused packaging material is available for testing.

Step 1 Test the control instrument (see section 8.1.2).

Step 2 Select the packing material used to make one prepackage from the available stocks.

Step 3 Zero the control instrument.

Step 4 Place the packing material on the control instrument and record the unused tare.

Step 5 Repeat steps 2 to 4 four more times.

8.2.2. Used Tare

A used tare is performed when access to unused packing material is unavailable. For this method the gross weight of the package must first be established in accordance with section 9.1.

Step 1 Test the control instrument (see section 8.1.2).

Step 2 Select a prepackage from the available stocks.

Step 3 If applicable zero the control instrument and record the gross mass of the prepackage.

Step 4 Remove the contents from the packing material.

Step 5 Clean and dry all packing material.

Step 6 Zero the control instrument.

Step 7 Place the packing material on the control instrument and record the used tare.

Step 8 Repeat steps 2 to 7 four more times.

8.2.3. Tare Validation

The number of tares required for testing depends on the consistency of the tares.

- if the range of tare values is equal to or less than 0.2% Q_n, take the smallest value as the tare. These tares are referred to as consistent tares; or
- if the range of tare values is greater than 0.2% Q_n, individual tare values must be obtained using the used tare method described in section 8.2.2. These tares are referred to as inconsistent tares.

Note: When products are sold by volume use the density figure determined in section 9.2 step 16 to calculate the weight of Q_n and use this figure during tare validation.

9. Test Procedures

This section describes the test procedures for determining the actual net quantity of a prepackaged product.

Ensure each prepackage being tested is identified by a unique identification number, prior to conducting any of the tests detailed below.

9.1. Gravimetric Mass Method

This method is used to determine the actual contents of a prepackaged product with a quantity statement in units of mass. The specific method to be used (section 9.1.1 or 9.1.2) depends on:

- consistent tare i.e. the range of tare values is equal to or less than 0.2% Q_n; or
- inconsistent tare i.e. the range of tare values is greater than 0.2% Q_n.

9.1.1. Consistent Tare

This method is used for packages with a consistent tare (see section 8.2.3).

Step 1 Test the control instrument (see section 8.1.2).

Step 2 If the control instrument is not indicating zero, zero the instrument.

Step 3 Place the unopened prepackage on the instrument and record the gross weight on the test report.

Step 4 Remove the prepackage from the instrument.

Step 5 Repeat steps 2 to 4, for all the prepackages in the sample.

Step 6 Re-test the control instrument (see section 8.1.2).

Step 7 If the prepackage tare has not already been determined, determine the prepackage tare (see section 8.2).

Step 8 Calculate and record the net weight of each prepackage by subtracting the prepackage tare (step 7) from the package gross weight (step 3).

Step 9 Determine if the results exceed the shortfall requirements described in the applicable section:

(a) section 6.2.1 for AQS screening;
(b) section 6.4 for full AQS testing;
(c) section 7.2 for non-AQS testing;
(d) section 7.3 for single article testing.

Step 10 Record the results on the test report.

9.1.2. Inconsistent Tare

This method is used for prepackages with an inconsistent tare (see section 8.2.3).

Step 1 Test the control instrument (see section 8.1.2).

Step 2 If the control instrument is not indicating zero, zero the instrument.

Step 3 Place the prepackage on the instrument and record the gross weight on the test report.

Step 4 Remove the prepackage from the instrument.

Step 5 Remove the contents from the prepackage. Clean and dry the packing material.

Step 6 Zero the control instrument.

Step 7 Weigh the packing material and record the tare weight on the test report.

Step 8 Remove the packing material from the instrument.

Step 9 Calculate and record the net weight of the prepackage by subtracting the tare (step 7) from the gross weight (step 3).

Step 10 Repeat steps 2 to 9 for all prepackages in the sample. Record the results on the test report.

Step 11 Re-test the control instrument (see section 8.1.2).

Step 12 Determine if the results exceed the shortfall requirements described in the applicable section:

(a) section 6.2.1 for AQS screening;

(b) section 6.4 for full AQS testing;

(c) section 7.2 for non-AQS testing;

(d) section 7.3 for single article testing.

9.2. Gravimetric Volume Method

This method is used to determine the actual contents of a prepackaged product with a quantity statement in units of volume, when the density can be accurately determined.

Step 1 Select a suitable reference standard volume measure.

Step 2 Record the value of the reference measure on the test report.

Step 3 Test the control instrument (see section 8.1.2).

Step 4 Condition the reference measure in accordance with the Certificate of Approval.

Note : When using a density bottle, ensure that it is dry prior to use. If the density bottle is used for multiple samples, the bottle can be rinsed after first sample with product from second sample and initial tare can be used.

Step 5 If the control instrument is not indicating zero, zero the instrument.

Step 6 Weigh the reference measure and record the tare weight.

Step 7 Remove the reference measure from the control instrument.

Step 8 Select a prepackage from the inspection lot. Ensure its contents are thoroughly mixed. Determine the net weight of the prepackage (see section 9.1).

Note : A different prepackage is required for the second sample.

Step 9 Fill the reference measure with the product.

Step 10 If the control instrument is not indicating zero, zero the instrument.

Step 11 Weigh the reference measure and record the gross weight.

Step 12 Remove the reference measure from the control instrument.

Step 13 Calculate and record the net weight of the product by deducting the tare weight (step 6) from the gross weight (step 11).

Step 14 Determine the density of the product by dividing the net weight of the liquid (step 13) by the value of the reference measure (step 2).

Step 15 Repeat steps 8 to 14 once more.

Step 16 (a) If the difference in the two density samples (step 14) is equal to or less than 0.1% of the smaller density, use the smaller density to determine the volume of the prepackage; or

(b) If the range of density values is greater than 0.1% of the smaller density, the gravimetric volume method is not suitable and an alternative method must be used.

Step 17 Test the control instrument in accordance with section 8.1.2.

Step 18 Determine the net weight of the remaining prepackages in the inspection lot and record the results on the test report (see section 9.1).

Step 19 Calculate the net volume by dividing the net weight of each of the prepackages by the density (step 16) and record the results on the test report.

Step 20 Determine if the results exceed the shortfall requirements described in the applicable section:

(a) section 6.2.1 for AQS screening;
(b) section 6.4 for full AQS testing;
(c) section 7.2 for non-AQS testing;
(d) section 7.3 for single article testing.

9.3. Mass per Unit Method

This method is used to determine the number of products in a prepackage which are of similar mass using the weight of the product.

If the product quantity is 50 or less, it is recommended that the prepackaged contents are individually counted.

Step 1 Test the control instrument (see section 8.1.2).

Step 2 Zero the control instrument.

Step 3 Place an unopened prepackage on the instrument and record the gross weight on the test report.

Step 4 Remove the prepackage from the instrument.

Step 5 Repeat steps 2 to 4, for all the prepackages in the inspection lot.

Step 6 If the package tare has not already been determined, determine the package tare (see section 8.2).

Note : The contents from each prepackage must be separated, identified with the package ID and retained.

Step 7 Calculate and record the net weight of each prepackage by subtracting the tare (step 6) from the gross weight (step 3).

Step 8 Determine the product sample size (see Table 3).

Step 9 Randomly select the required product sample from the contents of a single prepackage retained in step 6.

Step 10 Zero the control instrument.

Step 11 Weigh the product sample and record the weight on the test report.

Step 12 Determine the mass per unit by dividing the weight (step 11) by the number of units in the sample. Record the mass per unit.

Step 13 Repeat steps 8 to 12 with a product sample from two further prepackages.

Step 14 If the difference in any of the mass per units (step 12) is equal to or less than 0.5% of the lowest mass per unit, use the lowest mass per unit to determine the package contents.

Step 15 If the range of mass per unit values is greater than 0.5%, then the mass per unit value method is not suitable and an alternative method must be used.

Step 16 Calculate the number of articles in each of the remaining prepackages by dividing the net weight of each prepackage (step 7) by the mass per unit (step 12). Record all results on the test report.

Step 17 Determine if the results exceed the shortfall requirements described in the applicable section:

(a) section 6.2.1 for AQS screening;
(b) section 6.4 for full AQS testing;
(c) section 7.2 for non-AQS testing;
(d) section 7.3 for single article testing.

9.4. Counting Method

This method is used to determine the number of products in a prepackage by individually counting products in the packages.

Step 1 Select a prepackage from the inspection lot.

Step 2 Count the number of products in the prepackage.

Step 3 Record the result on the test report.

Step 4 Repeat steps 1 to 3 for all the prepackages in the sample.

Step 5 Determine if the results exceed the shortfall requirements described in the applicable section:

(a) section 6.2.1 for AQS screening;

(b) section 6.4 for full AQS testing;

(c) section 7.2 for non-AQS testing;

(d) section 7.3 for single article testing.

Appendix A: Test Report

Appendix A contains a test report, on which to record the results.

Although the format of the test report may vary according to the individual needs and requirements of external auditors, the following test report contains the minimum amount of information that must be recorded.

Where additional tests are required, attach pages that record the results of these tests.

Number each page of the test report in the style shown at the top of each of the following pages.

Test Report 1 for Prepackaged Products

Details of the Equipment and Reference Standards of Measurement (section 4)

Test report reference number	
Control instrument	
Make	
Model	
Serial number	
Graduation value (g)	
Test mass	
Mass set serial number	
Certificate number	
Certificate expiry date	
Length measure	
Make	
Serial number	
Length	
Certificate number	
Certificate expiry date	
Sieve	
Make	
Serial number	
Diameter (mm)	
Mesh aperture size (mm)	
Thermometer	
Make	
Model	
Serial number	
Certificate number	
Certificate expiry date	

Test Report 2 for Control Instrument

Repeatability (BITP 6, section 6.1)	Load		
	First reading		
	Second reading		
	Third reading		
	Difference		
	☐ Pass ☐ Fail		
Eccentricity (BITP 6, section 6.2)	Number of supports		
	Load used		
	Position 1		
	Position 2		
	Position 3		
	Position 4		
	Position 5		
	Position 6		
	☐ Pass ☐ Fail		
Weighing performance (BITP 6, section 6.4.1) Note: When conducting a performance test, only weighing performance is required.	Loads applied (minimum 5)	Up	Down
	☐ Pass ☐ Fail		
Overall result	☐ **Pass** ☐ **Fail**		

Test Report 3 for Gravimetric Mass Method

Test report reference number		Worksheet	
Date of inspection			
Product description			
Batch number			
Stated quantity			
Required sample size			
Tare value			

Individual Package Measurements

Package ID	Gross (g)	Tare (g)	Net (g)	Result
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

Tare Samples

Tare ID	Tare (g)
1	
2	
3	
4	
5	

20				
21				
22				
23				
24				
25				
etc.				

Test Report 4 for Gravimetric Volume Method

Test report reference number		Worksheet
Date of inspection		
Product description		
Batch number		
Stated quantity		
Required sample size		
Tare Value		

Product Density Determination

Volume Measure Details			**Sample 1**	**Sample 2**
Capacity (mL)		Gross (g)		
		Tare (g)		
		Net (g)		
		Measure Volume		
		Density		

Individual Package Measurements

Package ID	**Gross (g)**	**Tare (g)**	**Net (g)**	**Volume (mL)**	**Results**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Tare Samples

Tare ID	**Tare (g)**
1	
2	
3	
4	
5	

13					
14					
15					
16					
etc.					

Test Report 5 for Counting Method

Test Report reference number		Worksheet
Date of inspection		
Product description		
Batch number		
Stated quantity		
Required sample size		

Individual package measurements

Package ID	Count (number)	Result
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		

22		
23		
24		
25		
etc.		

Abbreviation key

π = 3.142

A = horizontal cross sectional area of the base of the vessel in the *volumetric* method for flowable solids

AQS = Average Quantity System

c = statistical factor to account for variation in the sample

d = scale interval

h = maximum internal height of the cylindrical vessel in the *volumetric* method for flowable solids

MPD = maximum permissible difference between readings

MPE = maximum permissible error

n = number of packages in the sample

N = number of prepackaged products selected

Q = weighted average quantity

Q_n = nominal quantity on the prepackaged article

r = radius of the cylindrical vessel in the *volumetric* method for flowable solids

T_1 = an error that occurs when the actual contents < (Q_n – T)

T_2 = an error that occurs when the actual contents < (Q_n – 2T)

u = smallest of the three heights of the unfilled capacity of the vessel in the *volumetric* method for flowable solids

x_{ii} = measured net contents of the '*i*th' prepackaged product