
A. Scope

For a complete list of GDTs, see the Table of Contents.

Use this test method to determine the relation between moisture content and the theoretical or laboratory maximum dry density. Measure the density in a 1/30 ft³ (0.000943, ± 0.000008 m³) (Reference ASTM D-698 Mold Volume Calibration) mold compacted by a 5.5 lb (2.5 kg) rammer.

B. Apparatus

The apparatus consists of the following:

1. **Mold:** Use a cylindrical metal mold with an approximate 4 in (101.6, ± 0.408 mm) diameter, 4.6 in (116.43, ± 0.1270 mm) high, and a volume of 1/30 ft³ (0.000943, ± 0.000008 m³). The mold is fitted with a detachable base plate and a removable extension approximately 2.5 in (63 mm) high (WM-05) (see Figure 7-1).
This volume to be 1/30 cubic ft., 4.59" (1.060 mm³, 116 mm) (Reference ASTM D-698 Mold Volume Calibration)
2. **Rammer:** Use a metal rammer with a 2 in (50.8, ± 0.127 mm) diameter, flat circular face, and weighing 5.5 lbs. (2.49 kg). The rammer must be equipped with a suitable arrangement to control the height of drop to a free fall of 12 in (304.8, ± 1.524 mm) above the soil (WR-1).
3. **Scales and Balances:** Use a scale of 20 kg capacity sensitive to and graduated in 0.1 g, and a 500 g capacity balance sensitive to 0.1 g.
4. **Drying Device:** Use a stove or oven capable of rapidly drying the moisture determination samples (WS-12).
5. **Straightedge:** Use a steel straightedge 12 in (300 mm) long (WS-13-1).
6. **Pans or Dishes:** Use pie pans or evaporating dishes suitable for drying soil samples (WP-01 or WD-3).
7. **Sieve:** Use a No. 10 (2.00 mm) sieve that conforms to the "Standard Specifications for Sieves for Testing Purposes," AASHTO M 92 (WS-08-#010).
8. **Graduated Cylinder:** Use a glass or plastic (WC-5-100) 3.4 oz. (100 ml) graduated cylinder used to measure the mixing water (Bit-04-100).
9. **Mallet:** Use a wooden mallet or rubber-covered pestle of suitable size (OH-06).
10. **Cup:** Use an 8 oz (237 ml), seamless tin cup (OC-11) for moisture-constant samples.
11. **Extruder (optional):** Use a cylindrical piston slightly less than 4 in (100 mm) diameter or similar device for removing compacted specimens from mold.

C. Sample Size and Preparation

1. Break all the soil aggregations without reducing the natural size of individual particles.
2. Select a representative test sample (about 10 lbs. (5 kg)) by quartering or by using a sampler.
3. Dry the sample only enough to sift over a No. 10 (2.00 mm) sieve. Do not sift yet.
4. Weigh the sifted sample and record the weight as the weight of the total sample.
5. Split the sample into two portions with the No. 10 (2.00 mm) sieve.
6. Grind the fraction retained on the No. 10 (2.00 mm) sieve with a rubber-covered pestle or wooden mallet until the aggregations of soil particles are broken up into separate grains.
7. Separate the ground soil into two fractions again with the No. 10 (2.00 mm) sieve.
8. Weigh the fraction retained on the No. 10 (2.00 mm) sieve after the second sieving.

- Record the weight as the weight of material retained on the No. 10 (2.00 mm) sieve.

D. Procedures

- Thoroughly mix both fractions that passed the No. 10 (2.00 mm) sieve in both sieving operations.
- Take a 6.6 lb (3000 g) sample from the minus No. 10 (2.00 mm) material by quartering or by using a sampler.
- Attach the extension to the cylinder.
- Compact the sample in the cylinder in three equal layers.
 - Compact each layer with 25 blows from the rammer dropped from 1 ft (304.8 mm) above the soil.
 - Rest the mold on a uniform, rigid foundation, such as a concrete block weighing at least 200 lbs (90 kg).
 - Uniformly distribute the blows over the surface of the compacted layer.
 - Remove the soil that adheres to the face of the rammer after every 25th blow.
- After compacting, remove the extension and base plate.
- Carefully level the compacted soil to the top and bottom of the cylinder with the straightedge.
- Weigh the cylinder and sample together.
- Calculate the wet weight of the compacted soil in pounds per cubic foot as follows:

$$\text{Wet Weight of Compacted Soil (lbs./ft}^3\text{)} = \frac{(W_s - W_c)/453.6}{V} \text{ or } \frac{(W_s - W_c) * \text{Mold Factor}}{453.6} \text{ or } (W_s - W_c) * \text{C.F.C}$$

V = Volume in lbs./ft³ of the Mold as calibrated Using (Reference ASTM D-698 Mold Volume Calibration)

Mold Factor = calculated 1/volume lbs./ft³

C.F.C = Correction Factor Conversion = Mold Factor/453.6

Ws = weight of the compacted soil and mold, in grams

Wc = weight of the mold, in grams

If you weighed in grams, dividing by 453.6 converts grams to pounds. This will give you the wet weight in pounds per cubic foot.

- Remove the compacted soil from the cylinder and slice it vertically through its center.
- Take a 100 g sample from the center and weigh it immediately.
- Dry the sample to a constant weight.
- Calculate the moisture content of the soil as follows:
- Moisture (%) = $\frac{A - B}{B} \times 100$

where:

A = weight of the wet soil

B = weight of the dry soil
- Thoroughly pulverize the remaining material from the compacted sample.
- Add enough water to increase the moisture content of the soil in predetermined increments (1 percent to 2 percent for sandy soils, 2 percent to 3 percent for clay soils).
 - For a 5.94 lb (2.7 kg) sample, add 0.9 oz (27 ml) of water to increase the moisture content by 1 percent.
 - For a 6.6 lb (3000 g) sample, add 1 oz (30 ml) of water.
- Repeat steps 1 through 13 again, taking a moisture sample after each determination.

17. Repeat the procedure until the soil becomes very wet and the wet weight of the compacted soil substantially decreases.

E. Calculations **(CVP 7)**

1. Calculate wet density:

$$\text{Wet Density} = \frac{(W_s - W_c)/453.6}{V} \text{ or } \frac{(W_s - W_c) * \text{Mold Factor}}{453.6} \text{ or } (W_s - W_c) * \text{C.F.C.}$$

where:

V = Volume of the Mold as calibrated Using (Ref. ASTM D-698, CVP 7)

Mold Factor = Calculated 1/volume lbs/ft³ (Ref. CVP 7)

C.F.C = Correction Factor Conversion (GDOT Correction Factor) = Mold Factor/453.6 (Ref. CVP 7)

W_c = Weight of mold in grams

W_s = Weight of mold + wet soil in grams

2. Calculate percent moisture:

$$\% \text{ Moisture} = \frac{A - B}{B} \times 100$$

where:

A = Weight of wet soil

B = Weight of dry soil

3. Calculate the density (dry weight), in pounds per cubic foot (kilograms per cubic meter), of the compacted soil as follows:

$$\text{English—Dry Density (lb/ft}^3\text{)} = \frac{W_w}{M + 100} \times 100$$

where:

W_w = wet weight of the compacted soil, in pounds per cubic foot (Procedures, step D.8)

M = moisture content, in percent, at which the wet weight was determined (Procedures, step D.12)

4. Moisture-Density Relationship

- a. Calculate and record the percent moisture and dry density for each determination in the series.
- b. When using the moisture-density relationship for compaction control:
 - i. Plot a moisture-density curve by plotting the dry densities against their respective moisture contents.
 - ii. Draw a smooth curve through the resulting points.
 - iii. The peak of the curve represents the maximum dry density of the material being tested, and the moisture content at this point represents the optimum moisture content.
- c. For classification purposes, interpret the maximum dry density as the highest density obtained in the test series, and the optimum moisture as the moisture content at that respective density.

5. Correction for Plus No. 10 (2.00 mm) Material

- d. If the soil contains material retained on the No. 10 (2.00 mm) sieve and the specifications show density requirements on the total sample, you must correct the maximum dry density to reflect the percentage of Plus No. 10 (2.00 mm) material.

- e. When determining maximum densities for compaction control, always correct the densities for the percentage of Plus No. 10 (2.00 mm) material.
- f. Use the conversion factors for correcting the density in Tables 1D - 7D, below.
- g. Use the conversion factors for correcting the moisture of Minus No. 10 (2.00 mm) for the Plus No. 10 (2.00 mm) in Tables 1M - 10M, below.

F. Report

1. Record the maximum dry density and the optimum moisture content of the material being tested as the theoretical or laboratory maximum dry density on Form 495.
2. Send the completed original form to the Office of Materials and Research in Forest Park.
3. Send copies of the form to the Branch Lab and the Area Engineer.
4. Notify the department head of any material that fails.

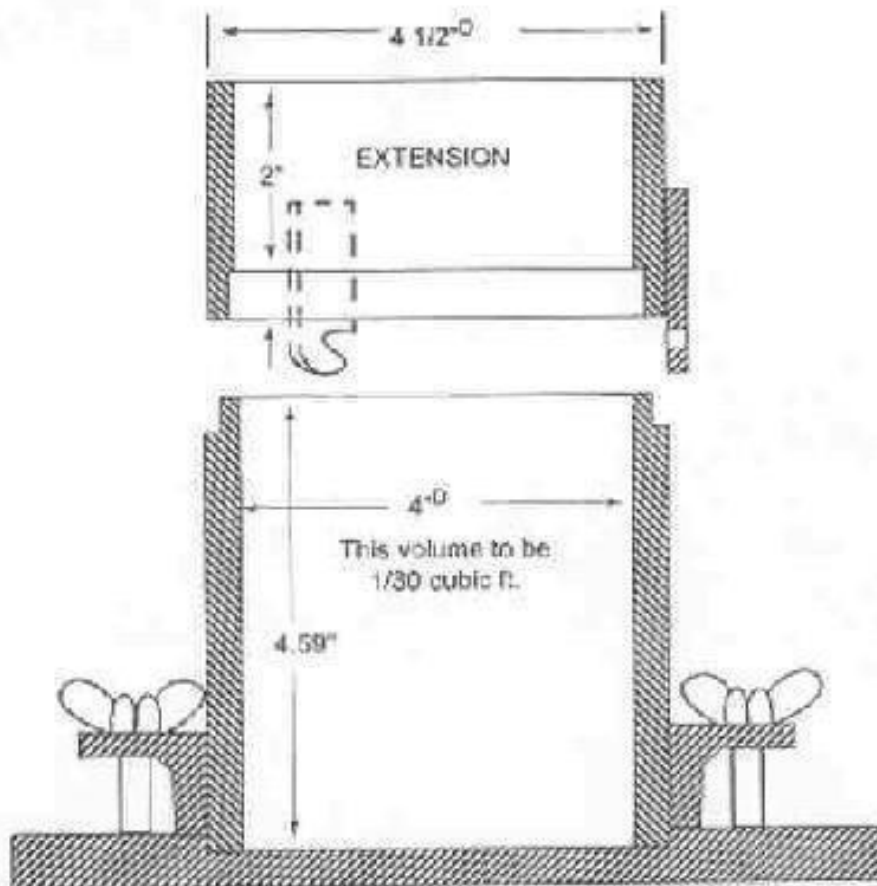


Figure 7-1

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**TABLE 1D FOR % PLUS NO. 10 IN TOTAL
SAMPLE**

% Plus No. 10 Material by Weight in Total Sample

-10 Density	1	2	3	4	5	6	7
130	130.1	130.2	130.3	130.4	130.5	130.6	130.7
129	129.1	129.2	129.3	129.4	129.5	129.6	129.7
128	128.1	128.2	128.3	128.5	128.6	128.7	128.8
127	127.1	127.3	127.4	127.5	127.6	127.8	127.9
126	126.1	126.3	126.4	126.5	126.7	126.8	126.9
125	125.2	125.3	125.4	125.6	125.7	125.9	126.0
124	124.2	124.3	124.5	124.6	124.8	124.9	125.1
123	123.2	123.3	123.5	123.6	123.8	124.0	124.1
122	122.2	122.3	122.5	122.7	122.9	123.0	123.2
121	121.2	121.4	121.5	121.7	121.9	122.1	122.2
120	120.2	120.4	120.6	120.7	120.9	121.1	121.3
119	119.2	119.4	119.6	119.8	120.0	120.2	120.4
118	118.2	118.4	118.6	118.8	119.0	119.2	119.4
117	117.2	117.4	117.6	117.9	118.1	118.3	118.5
116	116.2	116.4	116.7	116.9	117.1	117.3	117.6
115	115.2	115.5	115.7	115.9	116.2	116.4	116.6
114	114.3	114.5	114.7	115.0	115.2	115.4	115.7
113	113.3	113.5	113.8	114.0	114.3	114.5	114.8
112	112.3	112.5	112.8	113.0	113.3	113.6	113.8
111	111.3	111.5	111.8	112.1	112.3	112.6	112.9
110	110.3	110.6	110.8	111.1	111.4	111.7	111.9
109	109.3	109.6	109.9	110.1	110.4	110.7	111.0
108	108.3	108.6	108.9	109.2	109.5	109.8	110.1
107	107.3	107.6	107.9	108.2	108.5	108.8	109.1
106	106.3	106.6	106.9	107.3	107.6	107.9	108.2
105	105.3	105.6	106.0	106.3	106.6	106.9	107.3
104	104.3	104.7	105.0	105.3	105.7	106.0	106.3
103	103.3	103.7	104.0	104.4	104.7	105.0	105.4
102	102.4	102.7	103.0	103.4	103.7	104.1	104.4
101	101.4	101.7	102.1	102.4	102.8	103.1	103.5
100	100.4	100.7	101.1	101.5	101.8	102.2	102.6
99	99.4	99.8	100.1	100.5	100.9	101.3	101.6
98	98.4	98.8	99.2	99.5	99.9	100.3	100.7
97	97.4	97.8	98.2	98.6	99.0	99.4	99.8
96	96.4	96.8	97.2	97.6	98.0	98.4	98.8
95	95.4	95.8	96.2	96.6	97.1	97.5	97.9
94	94.4	94.8	95.3	95.7	96.1	96.5	96.9
93	93.4	93.9	94.3	94.7	95.1	95.6	96.0
92	92.4	92.9	93.3	93.8	94.2	94.6	95.1
91	91.5	91.9	92.3	92.8	93.2	93.7	94.1
90	90.5	90.9	91.4	91.8	92.3	92.7	93.2
89	89.5	89.9	90.4	90.9	91.3	91.8	92.3
88	88.5	88.9	89.4	89.9	90.4	90.8	91.3

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87	87.5	88.0	88.4	88.9	89.4	89.9	90.4
86	86.5	87.0	87.5	88.0	88.5	89.0	89.4
85	85.5	86.0	86.5	87.0	87.5	88.0	88.5
84	84.5	85.0	85.5	86.0	86.6	87.1	87.6
83	83.5	84.0	84.6	85.1	85.6	86.1	86.6
82	82.5	83.1	86.3	84.1	84.6	85.2	85.7
81	81.5	82.1	82.6	83.1	83.7	84.2	84.8

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TABLE 2D FOR % PLUS NO. 10 IN TOTAL SAMPLE
% Plus No. 10 Material by Weight in Total Sample

-10 Density	8	9	10	11	12	13	14
130	130.8	130.9	131.0	131.1	131.2	131.3	131.4
129	129.8	130.0	130.1	130.2	130.3	130.4	130.5
128	128.9	129.0	129.2	129.3	129.4	129.5	129.6
127	128.0	128.1	128.3	128.4	128.5	128.6	128.8
126	127.1	127.2	127.3	127.5	127.6	127.7	127.9
125	126.1	126.3	126.3	126.4	126.6	126.9	127.0
124	125.2	125.4	125.5	125.7	125.8	126.0	126.1
123	124.3	124.4	124.6	124.8	124.9	125.1	125.3
122	123.4	123.5	123.7	123.9	124.0	124.2	124.4
121	122.4	122.6	122.8	123.0	123.1	123.3	123.5
120	121.5	121.7	121.9	122.1	122.2	122.4	122.6
119	120.6	120.8	121.0	121.2	121.4	121.5	121.7
118	119.6	119.8	120.1	120.3	120.5	120.7	120.9
117	118.7	118.9	119.1	119.4	119.6	119.8	120.0
116	117.8	118.0	118.2	118.5	118.7	118.9	119.1
115	116.9	117.1	117.3	117.6	117.8	118.0	118.2
114	115.9	116.2	116.4	116.7	116.9	117.1	117.4
113	115.0	115.3	115.5	115.8	116.0	116.3	116.5
112	114.1	114.3	114.6	114.8	115.1	115.4	115.6
111	113.1	113.4	113.7	113.9	114.2	114.5	114.8
110	112.2	112.5	112.8	113.0	113.3	113.6	113.9
109	111.3	111.6	111.9	112.1	112.4	112.7	113.0
108	110.4	110.7	111.0	111.2	111.5	111.8	112.1
107	109.4	109.7	110.0	110.3	110.6	111.0	111.3
106	108.5	108.8	109.1	109.4	109.8	110.1	110.4
105	107.6	107.9	108.2	108.5	108.9	109.2	109.5
104	106.6	107.0	107.3	107.6	108.0	108.3	108.6
103	105.7	106.1	106.4	106.7	107.1	107.4	107.8
102	104.8	105.1	105.5	105.8	106.2	106.5	106.9
101	103.9	104.2	104.6	104.9	105.3	105.7	106.0
100	102.9	103.3	103.7	104.0	104.4	104.8	105.1
99	102.0	102.4	102.8	103.1	103.5	103.9	104.3
98	101.1	101.5	101.9	102.2	102.6	103.0	103.4
97	100.2	100.5	100.9	101.3	101.7	102.1	102.5
96	99.2	99.6	100.0	100.4	100.8	101.2	101.6
95	98.3	98.7	99.1	99.5	99.9	100.3	100.8
94	97.4	97.8	98.2	98.6	99.0	99.5	99.9
93	96.4	96.9	97.3	97.7	98.1	98.6	99.0
92	95.5	95.9	96.4	96.8	97.3	97.7	98.1
91	94.6	95.0	95.5	95.9	96.4	96.8	97.3

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90	93.6	94.1	94.6	95.0	95.5	95.9	96.4
89	92.7	93.2	93.7	94.1	94.6	95.0	95.5
88	91.8	92.3	92.7	93.2	93.7	94.2	94.6
87	90.9	91.3	91.8	92.3	92.8	93.3	93.8
86	89.9	90.4	90.9	91.4	91.9	92.4	92.9
85	89.0	89.5	90.0	90.5	91.0	91.5	92.0
84	88.1	88.6	89.1	89.6	90.1	90.6	91.1
83	87.2	87.7	88.2	88.7	89.2	89.7	90.3
82	86.2	86.8	87.3	87.8	88.3	88.9	89.4
81	85.3	85.8	86.4	86.9	87.4	88.0	88.5

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TABLE 3D FOR % PLUS NO. 10 IN TOTAL SAMPLE
 % Plus No. 10 Material by Weight in Total Sample

-10 Density	15	16	17	18	19	20	21
130	131.5	131.6	131.7	131.8	131.9	132.0	132.1
129	130.6	130.7	130.8	130.9	131.0	131.1	131.2
128	129.7	129.9	130.0	130.1	130.2	130.3	130.4
127	128.9	129.0	129.1	129.3	129.4	129.5	129.6
126	128.0	128.1	128.3	128.4	128.5	128.7	128.8
125	127.1	127.3	127.4	127.6	127.7	127.9	128.0
124	126.3	126.4	126.6	126.7	126.9	127.0	127.2
123	125.4	125.6	125.7	125.9	126.1	126.2	126.4
122	124.6	124.7	124.9	125.1	125.2	125.4	125.6
121	123.7	123.8	124.0	124.2	124.4	124.6	124.7
120	122.8	123.0	123.2	123.4	123.6	123.7	123.9
119	121.9	122.1	122.3	122.5	122.7	122.9	123.1
118	121.1	121.3	121.5	121.7	121.9	122.1	122.3
117	120.2	120.4	120.6	120.9	121.1	121.3	121.5
116	119.3	119.6	119.8	120.0	120.2	120.5	120.7
115	118.5	118.7	118.9	119.2	119.4	119.6	119.9
114	117.6	117.9	118.1	118.3	118.6	118.8	119.1
113	116.8	117.0	117.3	117.5	117.8	118.0	118.3
112	115.9	116.1	116.4	116.7	116.9	117.2	117.4
111	115.0	115.3	115.6	115.8	116.1	116.4	116.6
110	114.2	114.4	114.7	115.0	115.3	115.5	115.8
109	113.3	113.6	113.9	114.1	114.4	114.7	115.0
108	112.4	112.7	113.0	113.3	113.6	113.9	114.2
107	111.6	111.9	112.2	112.5	112.8	113.1	113.4
106	110.7	111.0	111.3	111.6	111.9	112.3	112.6
105	109.8	110.2	110.5	110.8	111.1	111.4	111.8
104	109.0	109.3	109.6	110.0	110.3	110.6	111.0
103	108.1	108.4	108.8	109.1	109.5	109.8	110.0
102	107.2	107.6	107.9	108.3	108.6	109.0	109.3
101	106.4	106.7	107.1	107.4	407.8	108.2	108.5
100	105.5	105.9	106.2	106.6	107.0	107.3	107.7
99	104.6	105.0	105.4	105.8	106.1	106.5	106.9
98	103.8	104.2	104.5	104.9	105.3	105.7	106.1
97	102.9	103.3	103.7	104.1	104.5	104.9	105.3
96	102.0	102.4	102.8	103.2	103.6	104.0	104.4
95	101.2	101.6	102.0	102.4	102.8	103.2	103.6
94	100.3	100.7	101.1	101.6	102.0	102.4	102.8
93	99.4	99.9	100.3	100.7	101.2	101.6	102.0

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92	98.6	99.0	99.4	99.9	100.3	100.8	101.2
91	97.7	98.2	98.6	99.0	99.5	99.9	100.4
90	96.8	97.3	97.8	98.2	98.7	99.1	99.6
89	96.0	96.4	96.9	97.4	97.8	98.3	98.8
88	95.1	95.6	96.1	96.5	97.0	97.5	98.0
87	94.2	94.7	95.2	95.7	96.2	96.7	97.1
86	93.4	93.9	94.4	94.9	95.3	95.8	96.3
85	92.5	93.0	93.5	94.0	94.5	95.0	95.5
84	91.7	92.2	92.7	93.2	93.7	94.2	94.7
83	90.8	91.3	91.8	92.3	90.9	93.4	93.9
82	89.9	90.4	91.0	91.5	92.0	92.6	93.1
81	89.1	89.6	90.1	90.7	91.2	91.7	92.3

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TABLE 4D FOR % PLUS NO. 10 IN TOTAL SAMPLE
 % Plus No. 10 Material by Weight in Total Sample

-10 Density	22	23	24	25	26	27	28
130	132.2	132.3	132.4	132.5	132.5	132.6	132.7
129	131.4	131.5	131.6	131.7	131.8	131.9	132.0
128	130.6	130.7	130.8	130.9	131.0	131.1	131.2
127	129.8	129.9	130.0	130.1	130.3	130.4	130.5
126	128.9	129.1	129.2	129.4	129.5	129.6	129.8
125	128.1	128.3	128.4	128.6	128.7	128.9	129.0
124	127.3	127.5	127.6	127.8	128.0	128.1	128.3
123	126.5	126.7	126.9	127.0	127.2	127.3	127.5
122	125.7	125.9	126.1	126.3	126.4	126.6	126.8
121	124.9	125.1	125.3	125.5	125.6	125.8	126.0
120	124.1	124.3	124.5	124.7	124.9	125.0	125.0
119	123.3	123.5	123.7	123.9	124.1	124.3	124.5
118	122.5	122.7	122.9	123.1	123.3	123.5	123.7
117	121.7	121.9	122.1	122.4	122.6	122.8	123.0
116	120.9	121.1	121.4	121.6	121.8	122.0	122.2
115	120.1	120.3	120.6	120.8	121.0	121.3	121.5
114	119.3	119.5	119.8	120.0	120.3	120.5	120.7
113	118.5	118.8	119.0	119.3	119.5	119.8	120.0
112	117.7	118.0	118.2	118.5	118.7	119.0	119.3
111	116.9	117.2	117.4	117.7	118.0	118.2	118.5
110	116.1	116.4	116.6	116.9	117.2	117.5	117.8
109	115.3	115.6	115.9	116.2	116.4	116.7	117.0
108	114.5	114.8	115.1	115.4	115.7	116.0	116.3
107	113.7	114.0	114.3	114.6	114.9	115.2	115.5
106	112.9	113.2	113.5	113.8	114.1	114.5	114.8
105	112.1	112.4	112.7	113.1	113.4	113.7	114.0
104	111.3	111.6	111.9	112.3	112.6	112.9	113.3
103	110.5	110.8	111.2	111.5	111.8	112.2	112.5
102	109.7	110.0	110.4	110.7	111.1	111.4	111.8
101	108.9	109.2	109.6	110.0	110.3	110.7	111.0
100	108.1	108.4	108.8	109.2	109.5	109.9	110.3
99	107.3	107.6	108.0	108.4	108.8	109.2	109.5
98	106.5	106.9	107.2	107.6	108.0	108.4	108.8
97	105.7	106.1	106.5	106.9	107.2	107.6	108.0
96	104.8	105.2	105.6	106.1	106.5	106.9	107.3
95	104.0	104.5	104.9	105.3	105.7	106.1	106.5
94	103.2	103.7	104.1	104.5	104.9	105.3	105.8

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93	102.4	102.9	103.3	103.7	104.2	104.6	105.0
92	101.6	102.1	102.5	103.0	103.4	103.8	104.3
91	100.8	101.3	101.7	102.2	102.6	103.1	103.5
90	100.0	100.5	100.9	101.4	101.9	102.3	102.8
89	99.2	99.7	100.2	100.6	101.1	101.6	102.0
88	98.4	98.9	99.4	99.9	100.3	100.8	101.3
87	97.6	98.1	98.6	99.1	99.6	100.0	100.5
86	96.8	97.3	97.8	98.3	98.8	99.3	99.8
85	96.0	96.5	97.0	97.5	98.0	98.5	99.0
84	95.2	95.7	96.2	96.8	97.3	97.8	98.3
83	94.4	94.9	95.5	96.0	96.5	97.0	97.5
82	93.6	94.1	94.7	95.2	95.7	96.3	96.8
81	92.8	93.4	93.9	94.4	95.0	95.5	96.0

GDT 7

TABLE 5D FOR % PLUS NO. 10 IN TOTAL SAMPLE
 % Plus No. 10 Material by Weight in Total Sample

-10 Density	29	30	31	32	33	34	35
130	132.8	132.9	133.0	133.1	133.2	133.3	133.4
129	132.1	132.2	132.3	132.4	132.5	132.6	132.7
128	131.4	131.5	131.6	131.7	131.8	131.9	132.1
127	130.6	130.8	130.9	131.0	131.1	131.3	131.4
126	129.9	130.0	130.2	130.3	130.4	130.6	130.7
125	129.1	129.3	129.4	129.6	129.7	129.8	130.0
124	128.4	128.6	128.7	128.9	129.0	129.2	129.3
123	127.7	127.8	128.0	128.2	128.3	128.5	128.6
122	126.9	127.1	127.3	127.4	127.6	127.8	128.0
121	126.2	126.3	126.5	126.7	126.9	127.1	127.2
120	125.4	125.6	125.8	126.0	126.2	126.4	126.5
119	124.7	124.9	125.1	125.3	125.5	125.7	125.9
118	123.9	124.2	124.4	124.6	124.8	125.0	125.2
117	123.2	123.4	123.6	123.8	124.1	124.3	124.5
116	122.5	122.7	122.9	123.1	123.4	123.6	123.8
115	121.7	122.0	122.2	122.4	122.7	122.9	123.1
114	121.0	121.2	121.5	121.7	122.0	122.2	122.4
113	120.3	120.5	120.8	121.0	121.3	121.5	121.8
112	119.5	119.8	120.0	120.3	120.5	120.8	121.1
111	118.8	119.0	119.3	119.6	119.8	120.1	120.4
110	118.0	118.3	118.6	118.9	119.1	119.4	119.7
109	117.3	117.6	117.9	118.2	118.4	118.7	119.0
108	116.6	116.9	117.1	117.4	117.7	118.0	118.3
107	115.8	116.1	116.4	116.7	117.0	117.3	117.6
106	115.1	115.4	115.7	116.0	116.3	116.6	117.0
105	114.3	114.7	115.0	115.3	115.6	115.9	116.3
104	113.6	113.9	114.3	114.6	114.9	115.3	115.6
103	112.9	113.2	113.5	113.9	114.2	114.6	114.9
102	112.1	112.5	112.8	113.2	113.5	113.9	114.2
101	111.4	111.7	112.1	112.5	112.8	113.2	113.5
100	110.6	111.0	111.4	111.7	112.1	112.5	112.8
99	109.9	110.3	110.7	111.0	111.4	111.8	112.2
98	109.2	109.6	109.9	110.3	110.7	111.1	111.5
97	108.4	108.8	109.2	109.6	110.0	110.4	110.8
96	107.7	108.1	108.5	108.9	109.3	109.7	110.1
95	106.9	107.3	107.7	108.2	108.6	109.0	109.4
94	106.2	106.6	107.0	107.4	107.9	108.3	108.7
93	105.4	105.9	106.3	106.7	107.2	107.6	108.0
92	104.7	105.1	105.6	106.0	106.5	106.9	107.3
91	104.0	104.4	104.9	105.3	105.8	106.2	106.6

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90	103.2	103.7	104.1	104.6	105.0	105.5	106.0
89	102.5	103.0	103.4	103.9	104.3	104.8	105.3
88	101.7	102.2	102.7	103.2	103.6	104.1	104.6
87	101.0	101.5	102.0	102.5	102.9	103.4	103.9
86	100.3	100.8	101.3	101.7	102.2	102.7	103.2
85	99.5	100.0	100.5	101.0	101.5	102.0	102.5
84	98.8	99.3	99.8	100.3	100.8	101.3	101.9
83	98.1	98.6	99.1	99.6	100.1	100.6	101.2
82	97.3	97.8	98.4	98.9	99.4	100.0	100.5
81	96.6	97.1	97.6	98.2	98.7	99.3	99.8

GDT 7

TABLE 6D FOR % PLUS NO. 10 IN TOTAL SAMPLE
% Plus No. 10 Material by Weight in Total Sample

-10 Density	36	37	38	39	40	41	42
130	133.5	133.6	133.7	133.8	133.9	134.0	134.1
129	132.9	133.0	133.1	133.2	133.3	133.4	133.5
128	132.2	132.3	132.4	132.5	132.6	132.8	132.9
127	131.5	131.6	131.8	131.9	132.0	132.1	132.3
126	130.8	131.0	131.1	131.2	131.4	131.5	131.6
125	130.1	130.3	130.4	130.6	130.7	130.9	131.0
124	129.5	129.6	129.8	129.9	130.1	130.2	130.4
123	128.8	129.0	129.1	129.3	129.4	129.6	129.8
122	128.1	128.3	128.5	128.6	128.8	129.0	129.1
121	127.4	127.6	127.8	127.9	128.1	128.3	128.5
120	126.7	126.9	127.1	127.3	127.5	127.7	127.9
119	126.1	126.3	126.4	126.6	126.8	127.0	127.2
118	125.4	125.6	125.8	126.0	126.2	126.4	126.6
117	124.7	124.9	125.1	125.3	125.6	125.8	126.0
116	124.0	124.3	124.5	124.7	124.9	125.1	125.4
115	123.4	123.6	123.8	124.0	124.3	124.5	124.7
114	122.7	122.9	123.2	123.4	123.6	123.9	124.1
113	122.0	122.3	122.5	122.8	123.0	123.3	123.5
112	121.3	121.6	121.8	122.1	122.4	122.6	122.9
111	120.6	120.9	121.2	121.5	121.7	122.0	122.3
110	120.0	120.2	120.5	120.8	121.1	121.4	121.6
109	119.3	119.6	119.9	120.2	120.4	120.7	121.0
108	118.6	118.9	119.2	119.5	119.8	120.1	120.4
107	117.9	118.2	118.6	118.9	119.2	119.5	119.8
106	117.3	117.6	117.9	118.2	118.5	118.8	119.1
105	116.6	116.9	117.2	117.6	117.9	118.2	118.5
104	115.9	116.2	116.6	116.9	117.2	117.6	117.9
103	115.2	115.6	115.9	116.3	116.6	116.9	117.3
102	114.6	114.9	115.3	115.6	116.0	116.3	116.7
101	113.9	114.2	114.6	115.0	115.3	115.7	116.0
100	113.2	113.6	113.9	114.3	114.7	115.0	115.4
99	112.5	112.9	113.3	113.7	114.0	114.4	114.8
98	111.9	112.2	112.6	113.0	113.4	113.8	114.2
97	111.2	111.6	112.0	112.4	112.8	113.2	113.5
96	110.5	110.9	111.3	111.7	112.1	112.5	112.9
95	109.8	110.2	110.6	111.0	111.4	111.9	112.3
94	109.1	109.5	110.0	110.4	110.8	111.2	111.6
93	108.4	108.9	109.3	109.7	110.2	110.6	111.0
92	107.8	108.2	108.6	109.1	109.5	110.0	110.4
91	107.1	107.5	108.0	108.4	108.9	109.3	109.8

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90	106.4	106.9	107.3	107.8	108.2	108.7	109.2
89	105.7	106.2	106.7	107.1	107.6	108.1	108.5
88	105.1	105.5	106.0	106.5	107.0	107.4	107.9
87	104.4	104.9	105.4	105.8	106.3	106.8	107.3
86	103.7	104.2	104.7	105.2	105.7	106.2	106.7
85	103.0	103.5	104.0	104.5	105.0	105.5	106.0
84	102.4	102.9	103.4	103.9	104.4	104.9	105.4
83	101.7	102.2	102.7	103.2	103.8	104.3	104.8
82	101.0	101.5	102.1	102.6	103.1	103.6	104.2
81	100.3	100.9	101.4	101.9	102.5	103.0	103.6

TABLE 7D FOR % PLUS NO 10 IN TOTAL SAMPLE
 % PLUS NO 10 Material by Weight Total Sample

-10 Density	43	44	45
130	134.2	134.3	134.4
129	133.6	133.7	133.8
128	133.0	133.1	133.2
127	132.4	132.5	132.6
126	131.8	131.9	132.0
125	131.1	131.3	131.4
124	130.5	130.7	103.8
123	129.9	130.1	130.2
122	129.3	129.5	129.7
121	128.7	128.8	139.0
120	128.0	128.2	128.8
119	127.4	127.6	127.8
118	126.8	127.0	127.2
117	126.2	126.4	126.6
116	125.6	125.8	126.0
115	125.0	125.2	125.4
114	124.4	124.6	124.8
113	123.8	124.0	124.3
112	123.1	123.4	123.7
111	122.5	122.8	123.1
110	121.9	122.2	122.5
109	121.3	121.6	121.9
108	120.7	121.0	121.3
107	120.1	120.4	120.7
106	119.5	119.8	120.1
105	118.8	119.2	119.5
104	118.2	118.6	118.9
103	117.6	118.0	118.3
102	117.0	117.4	117.7
101	116.4	116.8	117.1
100	115.8	116.1	116.5
99	115.2	115.5	115.9
98	114.6	114.9	115.3
97	113.9	114.3	114.7
96	113.3	113.7	114.1
95	112.7	113.1	113.5
94	112.1	112.5	112.9
93	111.4	111.9	112.3
92	110.8	111.3	111.7

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91	110.2	110.7	111.1
90	109.7	110.1	110.5
89	109.0	109.5	109.9
88	108.4	108.9	109.3
87	107.8	108.3	108.7
86	107.2	107.6	108.1
85	106.5	107.0	107.5
84	105.9	106.4	107.0
83	105.3	105.8	106.4
82	104.7	105.2	105.8
81	104.1	104.6	105.2

GDT 7

TABLE 1M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 1%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	5	10	15	20	25
40	38.1	36.1	34.2	32.2	30.3
39	37.1	35.2	33.3	31.4	29.5
38	36.2	34.3	32.5	30.6	28.8
37	35.2	33.4	31.6	29.8	28.0
36	34.3	32.5	30.8	29.0	27.3
35	33.3	31.6	29.9	28.2	26.5
34	32.4	30.7	29.1	27.4	25.8
33	31.4	29.8	28.2	26.6	25.0
32	30.5	28.9	27.4	25.8	24.3
31	29.5	28.0	26.5	25.0	23.5
30	28.6	27.1	25.7	24.2	22.8
29	27.6	26.2	24.8	23.4	22.0
28	26.7	25.3	23.9	22.6	21.3
27	25.7	24.2	23.1	21.8	20.5
26	24.8	23.5	22.3	21.0	19.8
25	23.8	22.6	21.4	20.2	19.0
24	22.9	21.7	20.6	19.4	18.3
23	21.9	20.8	19.7	18.6	17.5
22	21.0	19.9	18.9	17.8	16.8
21	20.0	19.0	18.0	17.0	16.0
20	19.1	18.1	17.2	16.2	15.3
19	18.1	17.2	16.3	15.4	14.5
18	17.2	16.3	15.5	14.6	13.8
17	16.2	15.4	14.6	13.8	13.0
16	15.3	14.6	13.8	13.0	12.3
15	14.3	13.6	12.9	12.2	11.5
14	13.4	12.7	12.1	11.4	10.8
13	12.4	11.8	11.2	10.6	10.0
12	11.5	11.0	10.4	9.8	9.3
11	10.5	10.0	9.5	9.0	8.5
10	9.6	9.1	8.7	8.2	7.8
9	8.6	8.2	7.8	7.4	7.0
8	7.7	7.3	7.0	6.6	6.3
7	6.7	6.4	6.1	5.8	5.5
6	5.8	5.5	5.3	5.0	4.8
5	4.8	4.6	4.4	4.2	4.0
4	3.9	3.7	3.6	3.4	3.3
3	2.9	2.8	2.7	2.6	2.5
2	2.0	1.9	1.9	1.8	1.8

GDT 7

TABLE 2M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 1%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	30	35	40	45
40	28.3	26.4	24.4	22.5
39	27.6	25.7	23.8	21.9
38	26.9	25.1	23.2	21.4
37	26.2	24.4	22.6	20.8
36	25.5	23.8	22.0	20.3
35	24.8	23.1	21.4	19.7
34	24.1	22.5	20.8	19.2
33	23.4	21.8	20.2	18.6
32	22.7	21.2	19.6	18.1
31	22.0	20.5	19.0	17.5
30	21.3	19.9	18.4	17.0
29	20.6	19.2	17.8	16.4
28	19.9	18.6	17.2	15.9
27	19.2	17.9	16.6	15.3
26	18.5	17.3	16.0	14.8
25	17.8	16.6	15.4	14.2
24	17.1	16.0	14.8	13.7
23	16.4	15.3	14.2	13.1
22	15.7	14.7	13.6	12.6
21	15.0	14.0	13.0	12.0
20	14.3	13.4	12.4	11.5
19	13.6	12.7	11.8	10.9
18	12.9	12.1	11.2	10.4
17	12.2	11.4	10.6	9.8
16	11.5	10.8	10.0	9.3
15	10.8	10.1	9.4	8.7
14	10.1	9.5	8.8	8.2
13	9.4	8.8	8.2	7.6
12	8.7	8.2	7.6	7.1
11	8.0	7.5	7.0	6.5
10	7.3	6.9	6.4	6.0
9	6.6	6.2	5.8	5.4
8	5.9	5.6	5.2	4.9
7	5.2	4.9	4.6	4.3
6	4.5	4.3	4.0	3.8
5	3.8	3.6	3.4	3.3
4	3.1	3.0	2.8	2.7
3	2.4	2.3	2.2	2.1
2	1.7	1.7	1.6	1.6

GDT 7

**TABLE 3M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
(FOR + 10 ABSORPTION OF 2%)
% Plus No. 10 Material by Weight in Total Sample**

-10 Moisture	5	10	15	20	25
40	38.1	36.2	34.3	32.4	30.5
39	37.2	35.3	33.5	31.6	29.8
38	36.2	34.4	32.6	30.8	29.0
37	35.3	33.5	31.8	30.0	28.3
36	34.3	32.6	30.9	29.2	27.5
35	33.4	31.7	30.1	28.4	26.8
34	32.4	30.8	29.2	27.6	26.0
33	31.5	29.9	28.4	26.8	25.3
32	30.5	29.0	27.5	26.0	24.5
31	29.6	28.1	26.7	25.2	23.8
30	28.6	27.2	25.8	24.4	23.0
29	27.7	26.3	25.0	23.6	22.3
28	26.7	25.4	24.1	22.8	21.5
27	25.8	24.5	23.3	22.0	20.8
26	24.8	23.6	22.4	21.2	20.0
25	23.9	22.7	21.6	20.4	19.3
24	22.9	21.8	20.7	19.6	18.5
23	22.0	20.9	19.9	18.8	17.8
22	21.0	20.0	19.0	18.0	17.0
21	20.1	19.1	18.2	17.2	16.3
20	19.1	18.2	17.3	16.4	15.5
19	18.2	17.3	16.5	15.6	14.8
18	17.2	16.4	15.6	14.8	14.0
17	16.3	15.5	14.8	14.0	13.3
16	15.3	14.6	13.9	13.2	12.5
15	14.4	13.7	13.1	12.4	11.8
14	13.4	12.8	12.2	11.6	11.0
13	12.5	11.9	11.4	10.8	10.3
12	11.5	11.0	10.5	10.0	9.5
11	10.6	10.1	9.7	9.2	8.8
10	9.6	9.2	8.8	8.5	8.0
9	8.7	8.3	8.0	7.6	7.3
8	7.7	7.4	7.1	6.8	6.5
7	6.8	6.5	6.3	6.0	5.8
6	5.8	5.6	5.4	5.2	5.0
5	4.9	4.7	4.6	4.4	4.3
4	3.9	3.8	3.7	3.6	3.5
3	3.0	2.9	2.9	2.8	2.8
2	2.0	2.0	2.0	2.0	2.0

TABLE 4M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 2%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	30	35	40	45
40	28.6	26.7	24.8	22.9
39	27.9	26.1	24.2	22.4
38	27.2	25.4	23.6	21.8
37	26.5	24.8	23.0	21.3
36	25.8	24.1	22.4	20.7
35	25.1	23.5	21.8	20.2
34	24.4	22.8	21.2	19.6
33	23.7	22.2	20.6	19.1
32	23.0	21.5	20.0	18.5
31	22.3	20.9	19.4	18.0
30	21.6	20.2	18.8	17.4
29	20.9	19.6	18.2	16.9
28	20.2	18.9	17.6	16.3
27	19.5	18.3	17.0	15.8
26	18.8	17.6	16.4	15.2
25	18.1	17.0	15.8	14.7
24	17.4	16.3	15.2	14.1
23	16.7	15.7	14.6	13.6
22	16.0	15.0	14.0	13.0
21	15.3	14.4	13.4	12.5
20	14.6	13.7	12.8	11.9
19	13.9	13.1	12.2	11.4
18	13.2	12.4	11.6	10.8
17	12.5	11.8	11.0	10.3
16	11.8	11.1	10.4	9.7
15	11.1	10.5	9.8	9.2
14	10.4	9.8	9.2	8.6
13	9.7	9.2	8.6	8.1
12	9.0	8.5	8.0	7.5
11	8.3	7.9	7.4	7.0
10	7.6	7.2	6.8	6.4
9	6.9	6.6	6.2	5.9
8	6.2	5.9	5.6	5.3
7	5.5	5.3	5.0	4.8
6	4.8	4.6	4.4	4.2
5	4.1	4.0	3.8	3.7
4	3.4	3.3	3.2	3.1
3	2.7	2.7	2.6	2.6
2	2.0	2.0	2.0	2.0

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**TABLE 5M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
(FOR + 10 ABSORPTION OF 3%)
% Plus No. 10 Material by Weight in Total Sample**

-10 Moisture	5	10	15	20	25
40	38.2	36.3	34.5	32.6	30.8
39	37.2	35.4	33.6	31.8	30.0
38	36.3	34.5	32.8	31.0	29.3
37	35.3	33.6	31.9	30.2	28.5
36	34.4	32.7	31.1	29.4	27.8
35	33.4	31.8	30.2	28.6	27.0
34	32.5	30.9	29.4	27.8	26.3
33	31.5	30.0	28.5	27.0	25.5
32	30.6	29.1	27.7	26.2	24.8
31	29.6	28.2	26.8	25.4	24.0
30	28.7	27.3	26.0	24.6	23.3
29	27.7	26.4	25.1	23.8	22.5
28	26.8	25.5	24.3	23.0	21.8
27	25.8	24.6	23.4	22.2	21.0
26	24.9	23.7	22.6	21.4	20.3
25	23.9	22.8	21.7	20.6	19.5
24	23.0	21.9	20.9	19.8	18.8
23	22.0	21.0	20.0	19.0	18.0
22	21.1	20.1	19.2	18.2	17.3
21	20.1	19.2	18.3	17.4	16.5
20	19.2	18.3	17.5	16.6	15.8
19	18.2	17.4	16.6	15.8	15.0
18	17.3	16.5	15.8	15.0	14.3
17	16.3	15.6	14.9	14.2	13.5
16	15.4	14.7	14.1	13.4	12.8
15	14.4	13.8	13.2	12.6	12.0
14	13.5	12.9	12.4	11.8	11.3
13	12.5	12.0	11.5	11.0	10.5
12	11.6	11.1	10.7	10.2	9.8
11	10.6	10.2	9.8	9.4	9.0
10	9.7	9.3	9.0	8.6	8.3
9	8.7	8.4	8.1	7.8	7.5
8	7.8	7.5	7.3	7.0	6.8
7	6.8	6.6	6.4	6.2	6.0
6	5.9	5.7	5.6	5.4	5.3
5	4.9	4.8	4.7	4.6	4.5
4	4.0	3.9	3.9	3.8	3.8
3	3.0	3.0	3.0	3.0	3.0
2	2.1	2.1	2.2	2.2	2.3

TABLE 6M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 3%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	30	35	40	45
40	28.9	27.1	25.2	23.4
39	28.2	26.4	24.6	22.8
38	27.5	25.8	24.0	22.3
37	26.8	25.1	23.4	21.7
36	26.1	24.5	22.8	21.2
35	25.4	23.8	22.2	20.6
34	24.7	23.2	21.6	21.1
33	24.0	22.5	21.0	19.5
32	23.3	21.9	20.4	19.0
31	22.6	21.2	19.8	16.4
30	21.9	20.6	19.2	17.9
29	21.2	19.9	18.6	17.3
28	20.5	19.3	18.0	16.8
27	19.8	18.6	17.4	16.2
26	19.1	18.0	16.8	15.7
25	18.4	17.3	16.2	15.1
24	17.7	16.7	15.6	14.6
23	17.0	16.0	15.0	14.0
22	16.3	15.4	14.4	13.5
21	15.6	14.7	13.8	12.9
20	14.9	14.1	13.2	12.4
19	14.2	13.4	12.6	11.8
18	13.5	12.8	12.0	11.3
17	12.8	12.1	11.4	10.7
16	12.1	11.5	10.8	10.2
15	11.4	10.8	10.2	9.6
14	10.7	10.2	9.6	9.1
13	10.0	9.5	9.0	8.5
12	9.3	8.9	8.4	8.0
11	8.6	8.2	7.8	7.4
10	7.9	7.6	7.2	6.9
9	7.2	6.9	6.6	6.3
8	6.5	6.3	6.0	5.8
7	5.8	5.6	5.4	5.2
6	5.1	5.0	4.8	4.7
5	4.4	4.3	4.2	4.1
4	3.7	3.7	3.6	3.6
3	3.0	3.0	3.0	3.0
2	2.3	2.4	2.4	2.5

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**TABLE 7M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
(FOR + 10 ABSORPTION OF 4%)
% Plus No. 10 Material by Weight in Total Sample**

-10 Moisture	5	10	15	20	25
40	38.2	36.4	34.6	32.8	31.0
39	37.3	35.5	33.8	32.0	30.3
38	36.3	34.6	32.9	31.2	29.5
37	35.4	33.7	32.1	30.4	28.8
36	34.4	32.8	31.2	29.6	28.0
35	33.5	31.9	30.4	28.8	27.3
34	32.5	31.0	30.5	28.0	26.5
33	31.6	31.1	28.7	27.2	25.8
32	30.6	29.2	27.8	26.4	25.0
31	29.7	28.3	27.0	25.6	24.3
30	28.7	27.4	26.1	24.8	23.5
29	27.8	26.5	25.3	24.0	22.8
28	26.8	25.6	24.4	23.2	22.0
27	25.9	24.7	23.6	22.4	21.3
26	24.9	23.8	22.7	21.6	20.5
25	24.0	22.9	21.9	20.8	19.8
24	23.0	22.0	21.0	20.0	19.0
23	22.1	21.1	20.2	19.2	18.3
22	21.1	20.2	19.3	18.4	17.5
21	20.2	19.3	18.5	17.6	16.8
20	19.2	18.4	17.6	16.8	16.0
19	18.3	17.5	16.8	16.0	15.3
18	17.3	16.6	15.9	15.2	14.5
17	16.4	15.7	15.1	14.4	13.8
16	15.4	14.8	14.2	13.6	13.0
15	14.5	13.9	13.4	12.8	12.3
14	13.5	13.0	12.5	12.0	11.5
13	12.6	12.1	11.7	11.2	10.8
12	11.6	11.2	10.8	10.4	10.0
11	10.7	10.3	10.0	9.6	9.3
10	9.7	9.4	9.1	8.8	8.5
9	8.8	8.5	8.3	8.0	7.8
8	7.8	7.6	7.4	7.2	7.0
7	6.9	6.7	6.6	6.4	6.3
6	5.9	5.8	5.7	5.6	5.5
5	5.0	4.9	4.9	4.8	4.8
4	4.0	4.0	4.0	4.0	4.0
3	3.1	3.1	3.2	3.2	3.3
2	2.1	2.2	2.3	2.4	2.5

TABLE 8M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 4%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	30	35	40	45
40	29.2	27.4	25.6	23.8
39	28.5	26.8	25.0	23.3
38	27.8	26.1	24.4	22.7
37	27.1	25.5	23.8	22.2
36	26.4	24.8	23.2	21.6
35	25.7	25.4	22.6	21.1
34	25.0	23.5	22.0	20.5
33	24.3	22.9	21.4	20.0
32	23.6	22.2	20.8	19.4
31	22.9	21.6	20.2	18.9
30	22.2	20.9	20.6	18.3
29	21.5	20.3	19.0	17.8
28	20.8	19.6	18.4	17.2
27	20.1	19.0	17.8	16.7
26	19.4	18.3	17.2	16.1
25	18.7	17.7	16.6	15.6
24	18.0	17.0	16.0	15.0
23	17.3	16.4	15.4	14.5
22	16.0	15.7	14.8	13.9
21	15.9	15.1	14.2	13.4
20	15.2	14.4	13.6	12.8
19	14.5	13.8	13.0	12.3
18	13.8	13.1	12.4	11.7
17	13.1	12.5	11.8	11.2
16	12.4	11.8	11.2	10.6
15	11.7	11.2	10.6	10.1
14	11.0	10.5	10.0	9.5
13	10.3	9.9	9.4	9.0
12	9.6	9.2	8.8	8.4
11	8.9	8.6	8.2	7.9
10	8.2	7.9	7.6	7.3
9	7.5	7.3	7.0	6.8
8	6.8	6.6	6.4	6.2
7	6.1	6.0	5.8	5.7
6	5.4	5.3	5.2	5.1
5	4.7	4.7	4.6	4.6
4	4.0	4.0	4.0	4.0
3	3.3	3.4	3.4	3.5
2	2.6	2.7	2.8	2.9

TABLE 9M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No. 10
 (FOR + 10 ABSORPTION OF 5%)
 % Plus No. 10 Material by Weight in Total Sample

-10 Moisture	5	10	15	20	25
40	38.3	36.5	34.8	33.0	31.3
39	37.3	35.6	33.9	32.2	30.5
38	36.4	34.7	33.1	31.4	29.8
37	35.4	33.8	32.2	30.6	29.0
36	34.5	32.9	31.4	29.8	28.3
35	33.5	32.0	30.5	29.0	27.5
34	32.6	31.1	29.7	28.2	26.8
33	31.6	30.2	28.8	27.4	26.0
32	30.7	29.3	28.0	26.6	25.3
31	29.7	28.4	27.1	25.8	24.5
30	28.8	27.5	26.3	25.0	23.8
29	27.8	26.6	25.4	24.2	23.0
28	26.9	25.7	24.6	23.4	22.3
27	25.9	24.8	23.7	22.6	21.5
26	25.0	23.9	22.9	21.8	20.8
25	24.0	23.0	22.0	21.0	20.0
24	23.1	22.1	21.2	20.2	19.3
23	22.1	21.2	20.3	19.4	18.5
22	21.2	20.3	19.5	18.6	17.8
21	20.2	19.4	18.6	17.8	17.0
20	19.3	18.5	17.8	17.0	16.3
19	18.3	17.6	16.9	16.2	15.5
18	17.4	16.7	16.1	15.4	14.8
17	16.4	15.8	15.2	14.6	14.0
16	15.5	14.9	14.4	13.8	13.3
15	14.5	14.0	13.5	13.0	12.5
14	13.6	13.1	12.7	12.2	11.8
13	12.6	12.2	11.8	11.4	11.0
12	11.7	11.3	11.0	10.6	10.3
11	10.7	10.4	10.1	9.8	9.5
10	9.8	9.5	9.3	9.0	8.8
9	8.8	8.6	8.4	8.2	8.0
8	7.9	7.7	7.6	7.4	7.3
7	6.9	6.8	6.7	6.6	6.5
6	6.0	5.9	5.9	5.8	5.8
5	5.0	5.0	5.0	5.0	5.0
4	4.1	4.1	4.2	4.2	4.3
3	3.1	3.2	3.3	3.4	3.5
2	2.2	2.3	2.5	2.6	2.8

TABLE 10M—MOISTURE CORRECTION OF MINUS NO. 10 FOR % PLUS No.
10 (FOR + 10 ABSORPTION OF 5%)
% Plus No. 10 Material by Weight in Total Sample

-10 Moisture	30	35	40	45
40	29.5	27.8	26.0	24.3
39	28.8	27.1	25.4	23.7
38	28.1	26.5	24.8	23.2
37	27.4	25.8	24.2	22.6
36	26.7	25.2	23.6	22.1
35	26.0	24.5	23.0	21.5
34	25.3	23.9	22.4	21.0
33	24.6	23.2	21.8	20.4
32	23.9	22.6	21.2	19.9
31	23.2	21.9	20.6	19.3
30	22.5	21.3	20.0	18.8
29	21.8	20.6	19.4	18.2
28	21.1	20.0	18.8	17.7
27	20.4	19.3	18.2	17.1
26	19.7	18.7	17.6	16.6
25	19.0	18.0	17.0	16.0
24	18.3	17.4	16.4	15.5
23	17.6	16.7	15.8	14.9
22	16.9	16.1	15.2	14.4
21	16.2	15.4	14.6	13.8
20	15.5	14.8	14.0	13.3
19	14.8	14.1	13.4	12.7
18	14.1	13.5	12.8	12.2
17	13.4	12.8	12.2	11.6
16	12.7	12.2	11.6	11.1
15	12.0	11.5	11.0	10.5
14	11.3	10.9	10.4	10.0
13	10.6	10.2	9.8	9.4
12	9.9	9.6	9.2	8.9
11	9.2	8.9	8.6	8.3
10	8.5	8.3	8.0	7.8
9	7.8	7.6	7.4	7.2
8	7.1	7.0	6.8	6.7
7	6.4	6.3	6.2	6.1
6	5.7	5.7	5.6	5.6
5	5.0	5.0	5.0	5.0
4	4.3	4.4	4.4	4.5
3	3.6	3.7	3.8	3.9
2	2.9	3.1	3.2	3.4