



United States Standards for Grades of Frozen Raw Breaded Scallops and Frozen Fried Scallops

Product description

- (a) *Frozen raw breaded scallops*-Frozen raw breaded scallops are:
- (1) Prepared from wholesome, clean, adequately drained, whole or cut adductor muscles of the scallop of the regular commercial species, or scallop units cut from a block of frozen scallops that are coated with wholesome batter and breading;
 - (2) packaged and frozen according to good commercial practice and maintained at temperatures necessary for preservation; and
 - (3) composed of a minimum of 50 percent by weight of scallop meat.
- (b) *Frozen fried scallops*-Frozen fried scallops are:
- (1) Prepared from wholesome, clean, adequately drained, whole or cut adductor muscles of the scallop of the regular commercial species, or scallop units cut from a block of frozen scallops that are coated with wholesome batter and breading;
 - (2) precooked in oil or fat;
 - (3) packaged and frozen according to good commercial practice and maintained at temperatures necessary for preservation; and
 - (4) composed of a minimum of 50 percent by weight of scallop meat.

[44 FR 32392, June 6, 1979]

Styles

The styles of frozen raw breaded scallops and frozen fried scallops include:

- (a) *Style I Random pack*. Scallops in a package are reasonably uniform in weight and/or shape. The weight or shape of individual scallops are not specified.
- (b) *Style II Uniform pack*. Scallops in a package consist of uniform shaped pieces which are of specified weight or range of weights.

Types

- (a) *Type 1*. Adductor muscle.
- (b) *Type 2*. Adductor muscle with catch (gristle or sweet meat) portion removed.

[44 FR 32392, June 6, 1979]

Grades

- (a) "U.S. Grade A" is the quality of frozen raw breaded scallops and frozen fried scallops that possess good flavor and odor; and for those factors of quality which are rated according to the scoring system outlined in this part, the total score is not less than 85 points.



(b) “U.S. Grade B” is the quality of frozen raw breaded scallops and frozen fried scallops that possess at least reasonably good flavor and odor; and for those factors of quality which are rated according to the scoring system outlined in this part, the total score is not less than 70 points.

(c) “Substandard” is the quality of frozen raw breaded scallops and frozen fried scallops that fail to meet the requirements of U.S. Grade B.

[42 FR 52782, Sept. 30, 1977. Redesignated and amended at 44 FR 32392, June 6, 1979]

Ascertaining the grade

The grade of frozen raw breaded scallops and frozen fried scallops is determined by examining the product in the frozen and cooked states. Factors of quality evaluated in ascertaining the grade of the product are flavor and odor appearance, uniformity, absence of defects, and character.

(a) Flavor and odor are rated directly by organoleptic evaluation. Score points are not assessed (see Evaluating the unscored factor of flavor and odor).

| FACTORS | POINTS |
|-----------------------|-----------------|
| Appearance | ¹ 25 |
| Uniformity | ¹ 20 |
| Absence of defects | 40 |
| Character | ¹ 15 |
| Total Possible points | 100 |

1 Frozen raw breaded scallops and frozen fried scallops which receive the maximum number of deduction points for any of these factors shall not be graded above Substandard regardless of the total score for the product. This is a limiting rule.

[42 FR 52782, Sept. 30, 1977, as amended as 51 FR 34991, Oct. 1, 1986]

Evaluating the unscored factor of flavor and odor

(a) “Good flavor and odor” (essential requirements for a Grade A product) means that the cooked product has flavor and odor characteristics of good scallop meat and of the breading and is free from staleness and off-flavors and off-odors of any kind.

(b) “Reasonably good flavor and odor” (minimum requirements of a Grade B product) means that the cooked product is lacking in good flavor and odor, but is free from objectionable off-flavors and off-odors of any kind.

(c) “Substandard flavor and odor” (Substandard grade) means that the flavor and odor fails to meet the minimum requirements of “reasonably good flavor and odor.”



Evaluating and rating the scored factors of appearance, uniformity, workmanship defects, and character

Point deductions are allotted for each degree or amount of quality variation within each of the factors that are scored. The net score for each quality factor is obtained by subtracting the deduction-points assessed for that factor from the maximum points allotted to that factor. The total score for the product is the sum of the net scores for the four individually scored factors.

Appearance

(a) Appearance refers to the condition of the package and ease of separation in the frozen state and continuity and color in the cooked state.

(1) “Condition of the package” refers to freedom from packaging defects and the presence in the package of oil, and/or loose breading, and/or frost. Deduction points are based on the degree of the improper condition as small or large.

(2) “Ease of separation” refers to the difficulty of separating scallops that are frozen together after the frying operation and during freezing.

(3) “Continuity” refers to the completeness of the coating of the product in the cooked state. Lack of continuity is exemplified by breaks, ridges and/or lumps of breading. Each 1/6 square inch area of any break, ridge, or lump of breading is considered an instance of lack of continuity. Individual breaks, ridges, or lumps of breading measuring less than 1/16 square inch are not considered objectionable. Deduction points are based on the percentage of the scallops within the package that contain small and/or large instances of lack of continuity.

(4) “Color” refers to reasonably uniform color which is characteristic of the product in the cooked state. Deviations in color are visually measured as “small” and “large”. A “small” instance of deviation in color means that the scallop varies noticeably from the predominating color of the package. A “large” instance of deviation in color means that the scallop varies markedly from the predominating color of the package. The deduction points assessed are based on the degree of deviation as small or large and the percentage by count of the scallops affected in the package.

(b) For the purpose of rating the factor of appearance, the schedule of deduction points in Table I applies. Frozen raw breaded scallops and frozen fried scallops which receive 25 deduction points for the factor of appearance shall not be graded above Substandard regardless of the total score for the product. This is a limiting rule.



TABLE I-SCHEDULE OF POINT-DEDUCTIONS FOR VARIATIONS IN APPEARANCE

| APPEARANCE SUB-FACTORS | METHOD OF DETERMINING SUB-FACTOR SCORE | PERCENT OF SCALLOPS AFFECTED | | DEDUCTION POINTS |
|--|---|------------------------------|---------------------|--------------------|
| | | Over | Not over | |
| Condition of the package in the frozen state | (a) Small (moderate amount of free oil and/or loose breading, and/or frost, and/or packaging defects). | | | 2 |
| | (b) Large (excessive amount of free oil, and /or loose breading, and/or frost, and/or packaging defects). | | | 5 |
| Ease of separation of the scallops in frozen state | Degree of ease of separation | | | |
| | Moderate (scallops separated by hand with difficulty) | 0 30 70 | 30 70 - | 1 2 3 |
| | Severe (scallops separated only by use of knife or other instrument). | 0 30 70 | 30 70 - | 4 10 15 |
| | | | | |
| Continuity of the scallops in the cooked state | Lack of continuity (breaks, ridges, and lumps) ¹ | | | |
| | Small (1 to 3 instances per scallops)..... | 0 20 50 70 | 20 50 70 - | 2 4 6 10 |
| | Large (over 3 instances per scallop)..... | 0 20 50 70 | 20 50 70 - | 4 8 12 25 |
| | | | | |
| | | | | |
| | | | | |
| Color of the scallops in the cooked state | Deviation from predominating color of fried scallops in cooked state | | | |
| | Small instance of deviation in color means that the scallop varies noticeably from the predominating color of the package after cooking | 0 10 30 | 10 30 - | 0 2 4 |
| | Large instance of deviation in color means that the scallop varies markedly from the predominating color of the package after cooking. | 0 10 30 | 10 30 - | 4 10 25 |
| | | | | |

¹Each 1/16 square inch is considered an instance.



TABLE II-SCHEDULE OF POINT-DEDUCTIONS FOR UNIFORMITY

| APPEARANCE SUB-FACTORS | METHOD OF DETERMINING SUB-FACTOR SCORE | PERCENT OF SCALLOPS AFFECTED | | DEDUCTION POINTS | |
|---|--|---|------------------|------------------|---|
| | | Over | Not over | | |
| A. Style I (Random pack) | | | | | |
| Uniformity of size and weight of scallops in frozen state | (a) Undesirable small pieces which pass through a sieve with 3/4 inch openings | 0 | 10 | 3 | |
| | | 10 | 20 | 6 | |
| | | 20 | - | 10 | |
| | (b) Weight ratio of scallops remaining the sieve. The 15 percent largest scallops (minimum 3) divided by the 15 percent smallest scallops (minimum 3). The 15 percent to be determined by count. | - | ¹ 2.0 | ¹ 0 | |
| | | ¹ 2.0 | ¹ 2.5 | ¹ 1 | |
| | | ¹ 2.5 | ¹ 2.9 | ¹ 3 | |
| | | ¹ 2.9 | ¹ 3.3 | ¹ 6 | |
| | | ¹ 3.3 | - | ¹ 10 | |
| | | A. Style I (Random pack) | | | |
| | | (a) Small (scallops deviating ± 10 to 20 percent from average | 0 | 30 | 3 |
| 30 | | | 70 | 5 | |
| 70 | | | - | 10 | |
| (b) Large (scallops deviating over ± 20 percent from average weight). | | 0 | 30 | 6 | |
| | | 30 | 70 | 10 | |
| | | 70 | - | 20 | |

¹ Ratio

Uniformity

(a) Uniformity refers to the degree of freedom from undesirably small pieces and to the degree of uniformity of the weights of the frozen raw breaded scallops and frozen fried scallops within the package.

(1) For Style I, deduction points are assessed for:

- (i) Undesirable small pieces as determined by the percent by count of pieces passing through a sieve with 3/4 inch openings, and;
- (ii) uniformity of size of the scallops remaining in the sieve as determined by the ratio of the weight of the 15 percent largest scallops (minimum three) divided by the 15 percent smallest scallops (minimum three). The number constituting this percentage shall be the closest approximation of 15 percent, determined by count.

(2) For Style II, deduction points are based on the percentage by count of small or large scallops deviating from the average weight within the package.

(b) For the purpose of rating the factor of uniformity, the schedules of deduction points in Table II apply. Frozen raw breaded scallops and frozen fried scallops which receive 20 deduction points for this factor shall not be graded above Substandard regardless of the total score for the product. This is a limiting rule.

Workmanship defects

(a) Workmanship defects refers to the degree of freedom from doubled and misshaped scallops and extraneous material. The defects of doubled and misshaped scallops are determined by examining the frozen product, while the defects of extraneous materials are determined by examining the product in the



cooked state. Deduction points are based on the percentage by count of the scallops affected within the package.

- (1) *Doubled scallops.* Two or more scallops that are joined together during the breading and/or frying operations
- (2) *Misshaped scallops.* Elongated, flattened, mashed, or damaged scallop meats.
- (3) *Extraneous material.* Extraneous are pieces or fragments of undesirable material that are naturally present in or on the scallops and which should be removed during processing.
 - (i) Examples of minor extraneous material include intestines, seaweed, and each aggregate of sand and grit within an area of 1/2-inch square.
 - (ii) Examples of major extraneous material include shell, aggregate of embedded sand or other extraneous embedded material that affects the appearance or eating quality of the product.

(b) For the purpose of rating the absence of defects, the schedule of deduction points in Table III applies.

TABLE III-SCHEDULE OF POINT DEDUCTIONS FOR WORKMANSHIP DEFECTS, SUBFACTORS, MISSHAPED OR DOUBLED SCALLOPS, AND EXTRANEOUS MATERIAL

| APPEARANCE SUB-FACTORS | METHOD OF DETERMINING SUB-FACTOR SCORE | PERCENT OF SCALLOPS AFFECTED | | DEDUCTION POINTS |
|---|---|------------------------------|----------|------------------|
| | | Over | Not over | |
| Misshaped or doubled scallops in the frozen state | Misshaped scallops (elongated, flattened, mashed, or damaged scallop meats). | 0 | 10 | 3 |
| | | 10 | 20 | 7 |
| | | 20 | - | 15 |
| Extraneous material in the cooked state | Doubled scallops (2 or more scallops joined together during breading and/or frying operation). Minor: Each instance of minor extraneous material in the sample unit per pound. Major: Each instance of major extraneous material in the sample unit per pound | | | 1 |
| | | | | 5 |

[42 FR 52782, Sept. 30, 1977, as amended at 44 FR 32392, June 6, 1979]

TABLE IV-SCHEDULE OF POINT-DEDUCTIONS FOR CHARACTER SUBFACTOR OF TEXTURE

| APPEARANCE SUB-FACTORS | METHOD OF DETERMINING SUB-FACTOR SCORE | DEDUCTION POINTS |
|---|---|------------------|
| Texture in the cooked state | Texture of the cooking | |
| | Firm or crisp, but not tough, pasty, mushy, or oily | 0 |
| | Moderately tough, pasty, mushy, or oily | 5 |
| | Excessively tough, pasty, mushy, or oily | 15 |
| | Texture of the scallop meat | |
| | Firm, but tender and moist | 0 |
| Moderately tough, dry, and/or fibrous or mushy | 5 | |
| Excessively tough, dry, and/or fibrous or mushy | 15 | |



Character

(a) Character refers to the texture of the scallop meat and of the coating and the presence of gristle in the cooked state. Deduction points are based on the degree of variation in the texture attributes of the coating and scallop meat or the relationship between the number of instances and the number of scallops within the package.

(1) *Gristle*. Gristle (type 2 only) is the tough elastic tissue usually attached to the scallop meat. Each instance of gristle is an occurrence.

(2) *Texture* refers to the firmness, tenderness, and moistness of the cooked scallop meat and to the crispness and tenderness of the coating of the cooked product. The texture of the scallop meat may be classified as a degree of mushiness, toughness, and fibrousness. The texture of the coating may be classified as a degree of pastiness, toughness, dryness, mushiness, or oiliness.

(b) For the purpose of rating the factor of character, the schedules of deduction points in Tables IV and V apply. Frozen raw breaded scallops and frozen fried scallops which receive 15 deduction points for the factor of character shall not be graded above Substandard regardless of the total score for the product. This is a limiting rule.

TABLE V-SCHEDULE OF POINT-DEDUCTIONS FOR CHARACTER SUBFACTOR OF GRISTLE

| Number of scallops per 7 ounces | Number of instances of gristle | | | | | | | | |
|---------------------------------|--------------------------------|---|---|---|---|----|----|----|-----------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 or more |
| | Point deductions | | | | | | | | |
| 10 or less | 0 | 2 | 4 | 6 | 8 | 10 | - | - | - |
| 11 | 0 | 2 | 4 | 6 | 8 | 10 | - | - | - |
| 12 | 0 | 2 | 4 | 6 | 8 | 10 | - | - | - |
| 13 | 0 | 1 | 3 | 5 | 8 | 10 | - | - | - |
| 14 | 0 | 1 | 3 | 5 | 7 | 9 | 10 | - | - |
| 15 | 0 | 1 | 2 | 4 | 6 | 8 | 10 | - | - |
| 16 | 0 | 1 | 2 | 4 | 6 | 8 | 10 | - | - |
| 17 | 0 | 1 | 2 | 4 | 6 | 8 | 10 | - | - |
| 18 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 10 | - |
| 19 | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 10 | - |
| 20 or more | 0 | 1 | 2 | 3 | 4 | 6 | 8 | 10 | - |

[42 FR 52782, Sept. 30, 1977, as amended at 44 FR 32392 June 6, 1979]

Definitions and methods of analysis

(a) *Percent of scallop meat* refers to percent, by weight, of scallop meat in sample as determined by the following method:

- (1) Equipment needed.
 - (i) Water bath (3 to 4 liter beaker).
 - (ii) Balance accurate to 0.1 gram.
 - (iii) Clip tongs of wire, plastic, or glass.



- (iv) Stop-watch or regular watch with second hand.
- (v) Paper towels.
- (vi) Spatula, 4-inch blade with rounded tip.

(2) Procedure.

- (i) Weigh all scallops in the sample while still in a hard frozen condition.
- (ii) Place each scallop individually in the water bath which is maintained at 63° to 86°F. and allow the scallop to remain until such time as the breading becomes soft and can easily be removed from the still frozen meat (between 10 to 30 seconds for scallops held in storage at 0°F.).
- (iii) Remove the scallop from the bath: blot lightly with double thickness paper toweling; and scrape off or pick out coating from the scallop meat with the spatula or nutpicker.
- (iv) Weigh all “debreaded” scallop meats.
- (v) Calculate the percent of scallop meat in the sample by the following formula:

Percent scallop meat = weight of scallop meat (iv) x 100 / Weight of frozen fried or breaded scallops(i)

(b) *Cooked state.* Cooked state shall mean that the product shall be cooked in accordance with the instructions accompanying the product.

(1) If specific instructions are lacking for fried scallops, the product for inspection shall be cooked as follows: Spread the frozen scallops on a foil covered baking sheet or a shallow pan. Place sheet or pan with frozen content at the mid-point of a properly ventilated oven preheated to 400 degrees Fahrenheit until thoroughly cooked, 15 to 20 minutes.

(2) If specific instructions are lacking for the breaded scallops, the product for inspection shall be cooked as follows: Place frozen, breaded product in wire mesh fry basket large enough to hold all items in single layer. Heat by immersing in 375 · F (190 · C) edible cooking oil 2-3 minutes or until items float to surface. After cooking, let items drain 15 seconds and place on paper napkin or towel to absorb excess oil.

(c) Definitions.

- (1) “Moderate” refers to a scored condition that is readily noticeable but is not seriously objectionable.
- (2) “Excessive” refers to a condition that is very noticeable and is seriously objectionable.
- (3) “Instance” refers to an occurrence of an individual scored subfactor on a scallop.

[42 FR 52782, Sept. 30, 1977, as amended at 44 FR 32392, June 6, 1979; 51 FR 34991, Oct. 1, 1986]

Tolerances for certification of officially drawn samples

The sample rate and grades of specific lots shall be certified in accordance with Part 260 of this chapter.