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Marketing and
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Programs

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Specialty
Crops
Program

Specialty
Crops
Inspection
Division

United States Standards for Grades of Tomato Sauce

Effective June 12, 2026

This issue of the United States Standards for Grades of Tomato Sauce (91 FR 26985) supersedes the previous issue which has been in effect since November 17, 1994.

Voluntary U.S. grade standards are issued under the authority of the Agricultural Marketing Act of 1946, which provides for the development of official U.S. grades to designate different levels of quality. These grade standards are available for use by producers, suppliers, buyers, and consumers. As in the case of other standards for grades of fresh and processed fruits, vegetables, and specialty crops these standards are designed to facilitate orderly marketing by providing a convenient basis for buying and selling, for establishing quality control programs, and for determining loan values.

The U.S. grade standards and inspection instructions for all fresh and processed fruits, vegetables, and specialty crops are available on the internet and upon request at the address below. These documents provide detailed interpretations of the grade standards and provide step-by-step procedures for grading the product.

Grade standards are issued by the U.S. Department of Agriculture (USDA) after careful consideration of all data and views submitted during rulemaking. The Department welcomes suggestions for improving the standards in future revisions. Comments may be submitted to, and copies of standards and inspection instructions obtained from:

Director, Specialty Crops Inspection Division
Specialty Crops Program,
USDA, Agricultural Marketing Service
1400 Independence Avenue, SW, STOP 0240
Washington, D.C. 20250

Authority: 7 U.S.C. 1621-1627.

Note: Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

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Product Description and Definition of Terms

§52.2371 Product description.

Tomato sauce is the concentrated product prepared from the liquid extracted from mature, sound, whole tomatoes; the sound residue from preparing such tomatoes for canning; the residue from partial extraction of juice; reconstituted or remanufactured tomato paste; or any combination of these ingredients to which salt and spices are added. One or more nutritive sweetening ingredients, a vinegar or vinegars, onion, garlic, or other vegetable flavoring ingredients may be added. The food is preserved by heat sterilization (canning), refrigeration, or freezing. When sealed in a container to be held at ambient temperatures, it is so processed by heat, before or after sealing, as to prevent spoilage.

The refractive index of the tomato sauce at 20 degrees Celsius must meet the following criteria:

- (a) The average of all sample units in the lot must be greater than or equal to 1.3455; and
- (b) Any individual sample may be as low as 1.3447.

§52.2372 Definitions of terms.

- (a) **Color** means the amount of red in the tomato sauce as determined by comparing the color of the product with the USDA Color Standards for Tomato Products. Information regarding the color guides may be obtained by contacting the USDA.
 - (1) **Good color** means the color typical of tomato sauce that contains as much or more red than the USDA Color Standard A2 for Tomato Products.
 - (2) **Reasonably good color** means the color typical of tomato sauce that contains as much or more red than the USDA Color Standard C2 for Tomato Products.
- (b) **Consistency** means the resistance of the tomato sauce to deformation or resistance to flow i.e., apparent viscosity and the tendency to hold its liquid portion in suspension.
 - (1) **Good consistency** means the tomato sauce is not excessively stiff and flows not less than 4.0 centimeters (cm) nor more than 12.0 cm in 30 seconds at 20 degrees Celsius in the Bostwick consistometer. After placing a tablespoon of tomato sauce on a shallow tray and observing the separation of free liquid for 2 minutes, there must be no more than 5 millimeters (mm) (3/16 inch (in)) separation. The higher consistency tomato sauce will receive the higher score points.

- (2) **Reasonably good consistency** means the tomato sauce is not excessively stiff, flows less than 4.0 cm but not less than 3.0 cm or flows more than 12.0 cm but not more than 15.0 cm in 30 seconds at 20 degrees Celsius in the Bostwick consistometer. After placing a tablespoon of tomato sauce on a shallow tray and observing the separation of free liquid for 2 minutes, there must be no more than 10 mm (3/8 in) separation. Within these two ranges, tomato sauce approaching “good consistency” will receive the higher score points.
- (c) **Defects** mean the degree of freedom from defects such as dark brown or black specks, whole seeds, tomato peel, core material or other similar substances. The specific requirements for defects are included in Table I of §52.2375. This factor is evaluated by observing a layer of 100 grams (g) (3.5 ounces (oz)) of product which is spread over a smooth white surface area of at least 968 sq cm (150 sq in).
- (1) **Practically free** of defects means that any defects present in the sauce do not exceed the requirements for “practically free” in Table I of §52.2375.
- (2) **Reasonably free** of defects means that any defects present in the sauce do not exceed the requirements for “reasonably free” in Table I of §52.2375.
- (d) **Finish.**
- (1) **Good finish** means that the product is evenly comminuted, has uniform, smooth texture, and is free from lumps.
- (2) **Poor finish** means that the product fails to meet the definition of “good finish.”
- (e) **Flavor and odor** means the flavor and odor characteristic of tomato sauce produced from good quality ingredients that have been properly processed.
- (1) **Good flavor and odor** means a good distinct flavor and odor characteristic of good quality ingredients. Such flavor and odor is free from scorching or any other objectionable flavor or odor.
- (2) **Reasonably good flavor and odor** means a flavor and odor characteristic of the ingredients in which there may be slight traces of undesirable flavor, such as scorched, bitter, or astringent flavor, but is free from objectionable off-flavors and odors.

Fill of Container**§52.2373 Fill of container.**

Except for frozen tomato sauce and tomato sauce packaged in individual serving-size packages containing 56.7 g (2 oz) or less, each container of tomato sauce must be filled as full as practicable without impairment of quality and must occupy not less than 90 percent of the capacity of the container.

Factors of Quality**§55.2374 Ascertaining the grade and factors of quality.**

The grade of tomato sauce is ascertained by considering the factor of finish, which is not scored, and the ratings for the factors of color, consistency, defects, and flavor and odor, which are scored. The relative importance of each factor which is scored is expressed numerically on the scale of 100. The maximum number of points that may be given for each factor is:

Factors:	Points
Color	25
Consistency	25
Defects	25
Flavor and odor	25
Total Score	100

§52.2375 Allowances for defects.

Table I

Allowances for Grade Factors		
Factor	Grade A	Grade B
Finish:	Good ¹	Good ¹
Color:	Good	Reasonably good
Score	21-25 points	17-20 points
Consistency:	Good	Reasonably good
Centimeters (Bostwick)	4.0-12.0	3.0 to less than 4.0 or more than 12.0 but not more than 15.0
Separation of free liquid	Equal to or less than 5 mm (3/16 in)	More than 5 mm but equal to or less than 10 mm (3/8 in)
Score	22-25 points	18-21 points
Defects: ²	Practically free	Reasonably free
Pieces of peel ³ exceeding 5 mm/100 g (3.5 oz) and dark specks exceeding 1.0 mm (1/32 in)	Combined total of 15 pieces of peel and dark brown or black specks exceeds 3.2 mm (1/8 in)	Combined total of 36 pieces of peel and dark brown or black specks exceeds 3.2 mm, no dark brown or black specks exceed 6.5 mm (1/4 in)
Whole seeds/2.835 kg (100 oz)	1	5
Overall appearance	Not materially affected	Not seriously affected
Score	21-25 points	18-20 points
Flavor and Odor:	Good	Reasonably good
Score	21-25 points	17-20 points
Total Minimum Score	85 points	70 points⁴

¹ Evenly comminuted; smooth uniform texture.

² Except for whole seeds, based on 100 gm (3.5 oz) of diluted well-mixed product at 8.0 to 9.0 percent tomato soluble solids (TSS). Whole seeds, based on 2.835 kilograms (kg) (100 oz) of product at 8.0 to 9.0 TSS if at least one whole seed(s) is found in a sample.

³ Measured without unrolling.

⁴ Tomato sauce which fails to meet the quality of U.S. Grade B will be classified as "Substandard."

§52.2376 Sample unit sizes.

- (a) The sample unit size is the amount of product specified to be used for inspection in 7 CFR §52.38, Table III.
- (b) For Number 10 can size or larger, an optional sample unit size of 900 g (approximately 32 oz) per container is permitted.

§52.2377 Determining the grade of a lot.

The grade of a lot of tomato sauce covered by these standards is determined by the procedures found in the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables, Processed Products Thereof, and Certain Other Processed Food Products (7 CFR §52.1 through §52.83).