

USDA COMMODITY REQUIREMENTS

**MCD6
MOZZARELLA CHEESE
FOR USE IN DOMESTIC PROGRAMS**

Effective Date: **05/15/2008**

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Part 1 COMMODITY SPECIFICATIONS

Section 1.1 MOZZARELLA CHEESE REQUIREMENTS

A. Quality of Product

- (1) Except as otherwise required, the natural Mozzarella cheese shall comply with the appropriate definition and standard of identity, and all regulations issued pursuant to the Federal Food, Drug, and Cosmetic Act, relevant to cheese (21 Code of Federal Regulations (CFR) Parts 1-199, including Parts 133.155 through 133.158, as appropriate for the type of Mozzarella cheese specified in the solicitation.
- (2) The Lite Mozzarella Cheese shall conform to the Commercial Item Description (CID) A-A-20248A in effect on the date of the solicitation, which is available at <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3006740>.

B. Production Requirements

- (1) The Mozzarella cheese delivered to the Government shall have been manufactured from pasteurized milk that was produced in the United States and not previously owned by the Government, and in plants that were inspected and approved by the Dairy Grading Branch, Dairy Programs Division, Agricultural Marketing Service (AMS). The USDA AMS plant approval code must match the appropriate product or operation code for the commodity being offered.
- (2) The curd manufacturing shall be performed at the same plant as the mixing and molding.
- (3) Mozzarella cheese which deviates from the specifications and the schedule of discounts contained herein will be rejected, or at the discretion of the contracting officer, accepted at discounts to be determined by the Government.
- (4) Notwithstanding the other provisions of this section, the presence of any extraneous material in the Mozzarella cheese will be the basis for rejection.

C. Product Age and Temperature Requirements

Low Moisture Part-Skim and Lite Mozzarella cheese product age and temperature requirements shall comply with the following:

Requirement	Description
Aging	Mozzarella cheese shall be aged not less than 5 days and not more than 15 days at 38° to 42° F (3.5° to 5.5° C), unless the mozzarella is manufactured and immediately shredded and frozen. (i.e. Individual Quick Frozen [IQF])
Testing and Inspection	Immediately after the aging process is completed, the following shall be performed:

	<ul style="list-style-type: none"> • Product samples pulled and submitted for product testing; and • Physical analysis.
Frozen	<p>Immediately after physical analysis is completed, cheese shall be placed in a freezer and the product temperature reduced to 20° F (-6.7° C) within a 24-hour period and held at such temperature until delivered.</p> <p>Exception: If such freezer space is unavailable at the manufacturing plant, the contractor may transport the cheese to a freezer facility at another location provided that the shipment to such facility is completed within 24 hours after the physical analysis is completed. During transportation, the cheese must be maintained at temperatures not higher than 35° F (1.7° C). Contractors are cautioned to take care that the cheese is not crushed or misshaped during the transport from the plant to the freezer facility. Once the cheese is delivered to the alternate facility, it shall be placed in a freezer and the product temperature reduced to 20° F (-6.7° C) and held at such temperature until delivered.</p> <p>Mozzarella cheese may be manufactured and frozen prior to offering to the Government. All frozen cheese may not be more than 180 days old on the date of delivery based on the date of manufacture as shown.</p>
Unfrozen	<p>Cheese to be delivered unfrozen shall be maintained at a temperature between 32° to 36° F (0° to 2.2° C) after the physical analysis has been completed.</p> <p>All unfrozen cheese shall be delivered within 19 days of manufacture date.</p>

D. Composition Requirements

Low Moisture Part-skim Mozzarella and Lite Mozzarella cheese composition requirements shall comply with the following:

Composition	Low Moisture Part-skim Mozzarella	Lite Mozzarella
Milk fat %	Greater than or equal to 30% but less than 45% by weight of the solids	Not more than 10.8% (as marketed)
Moisture %	Greater than 45%, but equal to or less than 50%	Range 52.0% - 60.0%
Salt %	Range 1.2% - 2.0%	Range 1.2% - 1.8%
pH value ¹	Range 5.0 – 5.4	Not to exceed 5.3

¹ If a re-test of the product is required, the quinhydrone method will be used by AMS laboratories.

E. Physical Analysis

The following physical attributes are required for Low Moisture Part-Skim (LMPS) and Lite Mozzarella cheese:

General Requirements	
Physical Attributes	Description for all Mozzarella Unless Specifically Noted
Flavor and Odor	<ul style="list-style-type: none"> • Shall have a mild pleasing flavor and may possess a slight acid and slight feed flavors, but not possess any undesirable flavors or odors. • Vinegar flavor will not be acceptable.
Color	<ul style="list-style-type: none"> • Shall have a natural white to light cream, uniform bright color, and an attractive sheen. • The loaf style may possess waviness to a very slight degree and may have a slight variation in color due to salt penetration.
Body and Texture	<p>Loaf style:</p> <ul style="list-style-type: none"> • A slice or plug drawn shall be flexible. (Except for lite mozzarella.) • Shall be smooth and pliable, and shall not possess sweet holes or be gassy. • Shall be free from all foreign and extraneous materials • May possess the following defects to a slight degree: <ul style="list-style-type: none"> - open - lacking flexibility - mealy - weak <p>Note: Lite mozzarella may also be sticky and rubbery to a slight degree.</p>
Meltability	<ul style="list-style-type: none"> • When a pizza prepared with lite mozzarella cheese is placed in a preheated oven at 450° F (232° C) for 10 minutes, OR when a pizza prepared with LMPS mozzarella is placed in a preheated oven at 425° F (218° C) for 10 minutes, the cheese must: <ul style="list-style-type: none"> - melt completely; - not exhibit shreds of unmelted cheese or excessive blistering; - stretch to a minimum of 3 inches of unbroken strings; and - be chewy but not gummy.

	Also, lite mozzarella may possess a slightly darker color than the color of the cheese before cooking but shall not exhibit burnt areas or excessive browning.
Appearance	No visible signs of mold.
Additional Shredded Requirements	
Body and Texture	<ul style="list-style-type: none"> • May also be coarse and pasty to a slight degree. • Shall be shredded to a nominal: height and width of: 1/8 inch x 1/8 inch 1/16 inch x 1/16 inch • Length of 1/8 inch to 1 1/2 inches. • Shall be loose and free from clumps except those that readily break up with slight pressure. • Shall be free flowing and shall not be matted. An approved anti-caking agent may be used as a processing aid. If an anti-caking agent is used, the amount used shall be the minimum required to produce the desired effect, but shall not exceed 2.0% of the weight of the cheese.
Fines	<ul style="list-style-type: none"> • Shall contain not more than 8.0% fines. • Fines shall be tested using a U.S. Standard Test Sieve: <ul style="list-style-type: none"> - #8 for a size greater than 1/16 inch x 1/16 inch shreds. - #14 (1.4 mm) for 1/16 inch x 1/16 inch shreds or less.

(2) Liability

(a) Frozen Cheese

The contractor shall be liable for losses due to excessive deterioration, mold development, or spoilage, which are discovered within 180 days of the date of delivery to the Government.

(b) Unfrozen Cheese

The contractor shall be liable for losses due to excessive deterioration, mold development or spoilage which are discovered within 30 days of the date of delivery to the Government.

Section 1.2 QUALITY ASSURANCE

- A. The contractor or AMS shall perform the product testing and quality analysis to ensure that the product meets the commodity specifications. The results shall be evidenced by a Certificate of Analysis (COA). If quality discounts are provided in the contract, and the product to be delivered by the contractor falls within the quality discount table, those factors shall be identified by an asterisk

on the copies of the COA. The meltability, percentage of moisture, milk fat, salt, fines and pH value shall be evidenced by certificates issued by AMS, an independent commercial laboratory using AOAC International approved methodology, or the contractor’s laboratory that complies with the inspection clause of the contract. The quality, date(s) of manufacture, and weight of the mozzarella cheese shall be evidenced by grading certificates issued by the contractor or AMS.

B. Contractors shall notify the Government immediately of lots that fail to meet contract requirements.

Section 1.3 QUALITY DISCOUNTS

Discounts for salt, moisture, and pH deviations from the commodity requirements will only be in accordance with the discounts in the tables below for each pound of Mozzarella cheese delivered.

Factor	Type	Salt Content Range	Discount per Pound
Salt	LMPS	0.90% to 0.99%	\$0.0050
		1.00% to 1.09%	\$0.0030
		1.10% to 1.19%	\$0.0020
		Not less than 1.2% but not more than 2.0%	
		2.01% to 2.09%	\$0.0025
		2.10% to 2.19%	\$0.0050
		2.20% to 2.29%	\$0.0100
		2.30% to 2.39%	\$0.0200
		2.40% to 2.50%	\$0.0300
	LITE	0.90% to 0.99%	\$0.0050
		1.00% to 1.09%	\$0.0030
		1.10% to 1.19%	\$0.0025
		Not less than 1.2% but not more than 1.8%	
		1.81% to 1.89%	\$0.0025
		1.90% to 1.99%	\$0.0050
		2.00% to 2.10%	\$0.0100

Factor	Type	Moisture Content Range	Discount per Pound	
Moisture	LMPS	50.01% to 50.50%	\$0.0300	
		50.51% to 51.00%	\$0.0400	
		51.01% to 51.50%	\$0.0500	
		51.51% to 52.00%	\$0.0600	
	LITE	Range 52.0% to 60.0%		
		60.01% to 60.50%	\$0.0305	
		60.51% to 61.00%	\$0.0405	
		61.01% to 61.50%	\$0.0505	
		61.51% to 62.00%	\$0.0605	

Factor	Type	pH Value Content Range	Discount per Pound	
pH	LMPS	4.1 – 4.3	\$0.0100	
		4.4 – 4.6	\$0.0075	
		4.7 – 4.9	\$0.0025	
		Greater than or equal to 5.0 but not greater than 5.4		
		5.41 – 5.42	\$0.0025	
		5.43 – 5.45	\$0.0075	
		5.46 – 5.47	\$0.0100	
		5.48 – 5.50	\$0.0150	
	LITE	Not exceeding 5.3		
		5.31 – 5.35	\$0.0025	
		5.36 – 5.45	\$0.0075	

Section 1.4 WEIGHT REQUIREMENTS

The mozzarella cheese delivered shall be packaged as indicated in the table below.

Type of Mozzarella	Shredded, Frozen or Unfrozen	Net Weight Packaging Options
Low Moisture Part Skim (LMPS)	Shredded, Frozen	30 pound box
	Frozen	8/6 pound loaves
	Unfrozen, Processor Packs ²	200/5 pound tote
		120/6 pound tote
		96/10 pound tote
		96/12 pound tote
		60/20 pound tote
		48/20 pound tote
		72/20 pound tote
Lite	Shredded, Frozen	30 pound box
	Frozen	8/6 pound loaves

² Unfrozen LMPS Mozzarella shall be packaged in totes (master bag). Cheese packaged in totes CANNOT be individually wrapped.

- A. For loaf style LMPS and Lite, the contractor shall deliver the number of units specified on the Notice to Deliver (N/D), and the actual net weight delivered shall not vary more than five (5) percent from the net weight specified on the N/D.
- B. For processor packs, the actual net weight delivered shall not vary more than five (5) percent from the net weight specified on the N/D.

PART 2 CONTAINER AND PACKAGING REQUIREMENTS

Section 2.1 GENERAL

This part provides the container specifications and packaging materials requirements used under this contract.

Section 2.2 COMMERCIAL PACKAGING REQUIREMENTS

- A. Contractors shall supply commercial brand products only and shall certify at the time of submission of an offer that the commercial product being delivered has a history of successful distribution and use in domestic commercial channels and is sold on the commercial market with an established level of consumer acceptance.
- B. Container and packaging requirements are those used in the current commercial shipping practices and shall comply with:
 - (1) Unitization requirements in Section 2.4.
 - (2) At contractor's option, a statement such as "Not for Retail Sale" may be printed on the principal display panel of the food label.
 - (3) The manufacturer's lot code/lot identification number shall be shown on the commercial bill of lading.
 - (4) Shipping containers shall be marked to show the maximum safe stacking height. It is the responsibility of the contractor in cooperation with the shipping container manufacturers to determine the safe stacking height.
 - (5) For identification upon receipt at delivery warehouses, all commercial-labeled product shipping documents shall specify "FOR USDA FOOD DISTRIBUTION PROGRAMS."
- C. A company name or brand name shall be shown on all shipping containers.

Section 2.3 CONTAINERS AND MATERIALS

- A. **All containers and packaging shall be constructed to meet the requirements of the Food and Drug Administration (FDA) for safe contact with the packaged product. The contractor shall obtain and maintain documentation from the container or packaging material manufacturer to verify that the containers and packaging materials used in this contract were in compliance with the Government's regulatory requirements for safe contact with food products as required in the Master Solicitation, Part 3, Section A, Number 3.**

- B. Questions concerning the containers and materials should be directed to:**
USDA/FSA/DACO
Room 5755 – South Bldg, STOP 0551
1400 Independence Avenue SW
Washington, DC 20250-0551
ATTN: Packaging
- C. If the contractor purchases packaging and container ingredients from a foreign country and/or the package and container is manufactured in a foreign country, the package and container SHALL NOT display country of origin labeling. Phrases similar to but not inclusive of, “Made in [Name of Foreign Country.]” or “Product of [Name of Foreign Country.]” are strictly prohibited.**

Section 2.4 UNITIZATION REQUIREMENT

Shipments shall comply with the following unitization requirements:

- A. Unless otherwise specified by the Government, all shipments of packaged products shall be unitized (palletized and stretch wrapped).
- B. Pallets shall be:
- (1) Constructed to facilitate the safe handling and transportation of the packaged product, as a unit, without loss or damage.
 - (2) A Number 2, four-way, reversible flush stringer with no broken runners or slats.
 - (3) Suitable for use in the shipment of food products.
- C. Plastic stretch wrap shall be:
- (1) Constructed of a plastic film which is to be stretched a minimum of 50 percent beyond its original length when stretched around the pallet load.
 - (2) Applied as tightly as possible around all tiers of the palletized shipping containers. The shipping containers shall be held firmly in place by the stretch wrap.
- D. Pallet loads shall be:
- (1) Stacked in such a way as to minimize the amount that shipping containers overhang the edges of pallets.
 - (2) Blocked and braced or otherwise loaded into the conveyance in a manner that prevents shifting during transit.

Section 2.5 MONTH/YEAR OF PACK

- A. The month/year of pack shall be shown on all shipping containers.

- B. A date fill code may be applied in addition to, but not in lieu of, the month/year of pack.

Section 2.6 LOT CODE/CERTIFICATE NUMBER

A lot code or official inspection certificate number shall be legibly marked on all primary shipping materials. Contractors may use any type of lot coding system, provided a unique code is used to identify each lot under a contract. When requested contractors shall provide to the Government an explanation of the lot coding system utilized.