

Agricultural Marketing Service Commodity Procurement Program International Commodity Procurement Division

1400 Independence Ave., SW Room 3522-S, STOP 0239 Washington, DC 20250-0239

## (MR27) USDA COMMODITY REQUIREMENTS MILLED RICE AND FORTIFIED MILLED RICE FOR USE IN INTERNATIONAL FOOD ASSISTANCE PROGRAMS

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# (MR27) MILLED RICE

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## LIST OF ABBREVIATIONS AND ACRONYMS

Below is an Abbreviations Key to the numerous specialized acronyms and abbreviations used in this reference material.

| ASTM  | American Society for Testing and Materials           |
|-------|--|
| Cfu   | Colony-forming unit                                  |
| COA   | Certificate of Analysis                              |
| CONEG | Coalition of Northeast Governors                     |
| CRD   | Commodity Requirements Document                      |
| FAS   | Foreign Agricultural Service                         |
| FDA   | Food and Drug Administration                         |
| FGIS  | Federal Grain Inspection Service                     |
| FPAC  | Farm Production and Conservation                     |
| G     | Gram   |
| GMP   | Good Manufacturing Practices                         |
| HACCP | Hazard Analysis and Critical Control Point           |
| ISO   | International Organization for Standardization       |
| IU    | International Units                                  |
| LMR   | Language Marking Requirement                         |
| Мсд   | Microgram  |
| MG    | Milligram  |
| SMR   | Standard Marking Requirement                         |
| TAPPI | Technical Association of the Pulp and Paper Industry |
| USAID | United States Agency for International Development   |
| USDA  | United States Department of Agriculture              |
| WBSCM | Web Based Supply Chain ManagementSystem              |

#### **CONTACT INFORMATION**

Kansas City Commodity Office (KCCO), International Procurement Division (IPD) Telephone: 816-926-6707 (During Normal Business Hours)

#### Mailing Address:

UNITED STATES DEPARTMENT OF AGRICULTURE Attention: Agricultural Marketing Service International Commodity Procurement Division MAILSTOP 8738 P.O. Box 419205 Kansas City, MO 64141-6205

#### **Express Delivery:**

UNITED STATES DEPARTMENT OF AGRICULTURE Attention: Agricultural Marketing Service International Commodity Procurement Division MAILSTOP 8738 2312 East Bannister Road Kansas City, MO 64131-3011

#### Web-Based Supply Chain Management (WBSCM) WBSCM Helpdesk Level 1-Technical Issues

Phone: 877-WBSCM-4U or 877-927-2648 (During Normal Business Hours) Or Email: <u>WBSCM.servicedesk@caci.com</u>

#### FSA Level 2 Help Desk – Functional Issues (i.e., New Vendor, Bid, Invoice Issues...)

Phone: 816-823-4249 or Email: <u>FSAWBSCMServiceRequest@kcc.usda.gov</u> Normal hours of operation are 7:00 am to 4:30 pm Central Time

#### **USDA Website:**

http://www.usda.gov/wps/portal/usda/usdahome

#### First time, Registered Users Only:

Service Desk email address is <u>WBSCM.servicedesk@caci.com</u>.

On the Log-in prompt enter your email address for both the User ID and Password (all lower

case for password) fields, and then change your password when prompted.

If you have any questions, please contact the WBSCM Service Desk at: **Phone:** 877-WBSCM-4U or 877-927-2648 or **Email:** <u>WBSCM.servicedesk@caci.com</u>

#### **USAID/BHA:**

555 12<sup>th</sup> St NW Washington, DC 20004 ATTN: Nutrition and Food Technology Team BHA.TPQ.FoodTech@usaid.gov

## **PRODUCT DESCRIPTION**

Fortified Milled Rice is a blend of milled rice and fortified rice-shaped kernels or rice kernels that are coated in a micronutrient-premix. Both types of kernels are designed to match the size, shape, color, texture, and density of regular milled rice (medium or long grain). The fortification technologies used in production (hot extrusion or coating) preserve micronutrient content even if the rice is rinsed before cooking, a common practice where rice is consumed. Fortified Milled Rice is packaged in 50 kg, and may in the future, be packaged in 1 kg to 25 kg depending on program need.

## PART 1 COMMODITY SPECIFICATIONS

## 1.1. SPECIFICATIONS

A. For the purpose of this specification, the following definitions apply:<sup>1</sup>

- 1. Fortificant: chemical form of addedmicronutrients
- 2. Micronutrient premix: fortificant mix ready for use directly in rice fortification
- 3. Fortified Kernels: rice grains fortified with the micronutrient premix
- 4. Traditional Milled Rice: polished rice packaged at the rice mills
- 5. **Fortified Rice**: Traditional Milled Rice combined with micronutrient premix or the fortified kernels.
- B. The Government will accept offers for long or medium grain milled rice for fortification. The rice shall meet the specifications of the class and grade offered, as defined in the "Official United States Standards for Rice," in effect at the time the solicitation for offers is issued.
  - 1. The milled rice may include any of the following, which shall be specifically stated in the solicitation:
    - I. U.S. #5 or better with a maximum of 20 percent brokenkernels;
    - II. U.S. #3 or better with a maximum of 15 percent broken kernels; or
    - III. U.S. #2 or better with a maximum of 7 percent broken kernels.
- C. Final fortified rice shall be pre-blended with traditional milled rice, such that no modifications to customary rice preparation and cooking method will be required. The fortified kernels shall be thoroughly blended with the milled rice to ensure a uniform distribution throughout.
- D. Offers for parboiled rice will be accepted when specifically stated in the solicitation. No specialty rice, including but not limited to aromatic rice, shall be acceptable unless specified in the solicitation.
- E. Fortified kernels shall be sourced from U.S. companies, producing such micronutrientpremixes in the U.S. and using domestic raw material/ingredients, unless such ingredients are deemed to be unavailable, in which case waivers shall be granted, in accordance with U.S. food assistance procurement guidelines.
- F. The Government will accept delivery of rice grading better than the specified contract grade, but:
  - 1. No adjustment in contract price will be made for rice grading better than the contract

<sup>&</sup>lt;sup>1</sup> Academy for Educational Development. 2008. Rice Fortification in Developing Countries: A Critical Review of the Technical and Economic Feasibility.

grade.

2. No substitution of one class of rice for another class of rice will be allowed after a contract has been awarded.

## **1.2. FORTIFICATION**

- A When the solicitation calls for Fortified Rice, the following requirements apply:
  - 1. Since fortified kernel production technologies can vary from one supplier to the next and given the criticality of the fortified kernels in terms of ensuring appropriate micronutrient retention and bioavailability, any new fortified kernel supplier shall be approved by the U.S. Government.
  - 2. The fortificant-mix shall be added to a rice-based carrier to form the fortified kernels. Two technologies for rice fortification are acceptable: Hot extrusion and Coating. Regardless of the fortified kernel technology used, the payload of micronutrients in fortified kernels must take into account any loss during final preparation and cooking, as well as latest evidence on loss during shelf life. Micronutrient retention data from the final fortified rice shall be generated and documented by the fortified kernel supplier.
  - 3. If the rice fortificant premix is manufactured using coating technology, the rice-based carrier fortificant grains to produce the fortified milled rice shall meet a minimum grade of U.S. #2 or better.
  - 4. The fortified kernels shall not present any significant organoleptic (i.e., texture, taste, color, or appearance) differentiation that would be unappealing to the average consumer. Acceptability data from the final fortified rice shall be generated and documented by the fortified kernel supplier.
  - 5. Fortified rice shall withstand final preparation processing (i.e., pre-washing, heat, high moisture, agitation, etc.) without compromising the functionality of coated or hot extruded fortified kernels.
  - 6. Micronutrient/fortificant premixes shall be procured from a GAIN-approved premix facility. <u>https://gpf.gainhealth.org/suppliers/current-suppliers</u>
  - 7. Bioavailability of the fortified kernels must be documented by the fortified kernel supplier (suppliers are to work with the U.S. Government contracting officer and food technologists to align on rationale).
  - 8. New fortified rice blenders must go through an approval process with the U.S. Government. Details can be shared by the contracting officer.
- B. The fortified rice shall achieve the levels of micronutrients shown in Table 1.

 Table 1. Target Levels of Micronutrients and Suggested Chemical Forms in Fortified Milled

 Rice per Gram of Fortified Kernels (or per 100 grams of Fortified Rice Finished Product)

| Micronutrient                                  | Analytical<br>Target/gram<br>of Premix <sup>2</sup> | Recommended Chemical<br>Form <sup>3</sup>   | Reference Methods <sup>4</sup> |
|--|---|---|--------------------------------|
| Vitamin A (Retinol<br>Equivalent)              | 500 IU  | Micro-encapsulated Vitamin A<br>Palmitate <sup>5</sup>  | EN 12823-1                     |
| Vitamin B1                                     | 0.5 mg  | Thiamine Mononitrate  | EN 14122                       |
| Vitamin B3                                     | 7.0 mg  | Niacinamide   | EN 15652                       |
| Vitamin B6                                     | 0.60 mg   | Pyridoxine Hydrochloride  | EN 14164                       |
| Folic Acid (as Dietary<br>Folate Requirements) | 0.13 mg   | Folic Acid  | AOAC 944.12; AOAC 45.2.03      |
| Vitamin B12                                    | 1 mcg   | Vitamin B12 0.1% WS   | AOAC 952.20; AOAC 45.2.02      |
| Iron   | 4.0 mg  | Micronized Ferric Pyrophosphate, or other<br>food grade iron forms if same or better<br>bioavailability can be demonstrated | ICP (OES or MS)                |
| Zinc   | 6.0 mg  | Zinc Oxide  | ICP (OES or MS)                |
| Citrate*                                       | Min: 35,000 mg/kg<br>Max: 54,000mg/kg               | Trisodium citrate dihydrate   |                                |
| Citric acid*                                   | Min: 1300 mg/kg<br>Max: 1920 mg/kg                  | Citric acid   |                                |
| Carrier and binding agents                     | Report usage in formulation                         | Must be GRAS-approved and must not interfe micronutrients   | re with bioavailability of     |
| Fortification Ratio <sup>6</sup>               | 1:100 <sup>7</sup>                                  | The dilution factor should be adjusted to optim<br>the best sensorial characteristics and a homogon<br>the fortificant      |                                |

\*Chelating Agents (Iron Supplementation of Rice Kernels, International Patent Application Number PCT/EP2013/059331)

• These components constitute a citrate buffer that will act as a chelating agent in the premix to improve the bioavailability of iron in the final product.

• A citrate buffer with a pH of 6-7 composed of at least: 35mg Trisodium citrate dihydrate and 1.3mg Citric acid to every 4mg of iron.

<sup>&</sup>lt;sup>2</sup> Premix levels shown are target levels ( $\pm 20\%$ ) unless otherwise specified in Table 1 or the solicitation. Alternative levels may be specified in individual solicitations based on the national and beneficiary consumption level of rice, nutritional needs, and regulatory requirements in the destination country. The target levels (or those in the solicitation, if different from Table 1) shall be guaranteed at the end of 24- month shelf life at 30°C (86°F), supported by appropriate data from uncooked samples. Appropriate overages should be used to compensate for potency loss over the shelf-life period due to storage and packaging conditions.

<sup>&</sup>lt;sup>3</sup> Alternative forms will only be acceptable when they can be formulated and appropriately demonstrated to achieve equivalent bioavailability to the recommended chemical form.

<sup>&</sup>lt;sup>4</sup> Or equivalent validated methods; Any testing method used, including those listed here, must be validated, in terms of their effectiveness and reproducibility.

<sup>&</sup>lt;sup>5</sup> The selection of the product formulation (oily Vitamin A, spray dried Vitamin A, encapsulated Vitamin A in a beadlet) depends on the fortified kernels and the technology to produce them. The producer of the fortified kernels (either fortified by coating or hot extrusion technology) shall ensure that the vitamin A loss during storage at 30°C 65% relative humidity is below 5% per month. However, accumulated variation around the mean of Vitamin A allowed from the moment of production up to one year of storage under the specified conditions should not be less than 20% or over 40%

<sup>&</sup>lt;sup>6</sup> A plus and minus 15% variation is allowed, assuming a blending ratio of one grain of fortified kernel per each 100 grains of unfortified rice (1:100). Values should be the result of pulling composite samples throughout production lots.

<sup>&</sup>lt;sup>7</sup> Kernel producers can provide feedback on alternative ratios, but it must be approved by contracting agencies.

C. The government reserves the right to perform verification testing for all micronutrients specified in Table 1 but will routinely test for only Vitamin A and Iron if the contractor submits a Certificate of Analysis for the rice premix which indicates the appropriate level of all micronutrients specified in Table 1.

## 1.3 QUALITY ASSURANCE

- A Food Safety and Quality Standards
  - 1. Applicable food safety and quality standard for fortified kernels and final fortified rice include but are not limited to:
    - Compliance with the U.S. Food and Drug Administration (FDA) Regulations including 21 CFR 137.350, Enriched Rice, and the Food Safety Modernization Act (FSMA)
    - II. Both fortified kernel producers and fortified rice blending facilities must comply with USDA/AMS food safety and quality Preventive Auditing System. USDA/AMS/SCP/SCI Audit Services Branch <u>https://www.ams.usda.gov/services/scicontacts</u>
    - III. General principles for addition of essential nutrients to foods: CAC/GL 09-1987 (amended 1991) of the Codex Alimentarius
    - IV. Recommended International Code of Practice General Principles of Food Hygiene CAC/RCP 1-1969, Rev.4-2003
    - V. Code of Hygienic Practices for low-moisture Foods. CAC/RCP 75-2015. Adopted in 2015.
    - VI. General standard for contaminants and toxins in food and feed: CODEX STAN 193-1995

## B. Fortified Rice

- 1. In addition to the invoice requirements contained in the International Master Solicitation for Commodity Procurements, the processor shall provide the following invoice package for each lot of product:
  - I. Certificate certifying that the proper amount of fortified kernel was added to the shipment to meet the specification requirements. This shall include a declaration of coefficient of variation and description of the methodology used to validate the blend.
  - II. Certificate of Analysis of the rice-premix that indicates the level and chemical form of each micronutrient in the fortificant, ensuring compliance with micronutrient requirements in Table 1.
  - III. Microbiology and contaminants analysis (Table 2)
- C. Auditing
  - The fortified kernel and fortified rice vendor shall agree to allow USDA Food Safety/Quality Inspectors to visit the factory without prior notice during anyperiod when USDA/USAID product is being manufactured, to check that the GMP and HACCP systems are in place.
- D. Microbiology and Contaminants
  - Milled rice and fortified rice suppliers shall provide microbiological test results in the form of a Certificate of Analysis (CoA) which shall not exceed the following levels in the finished product. The CoA must be issued with data generated by a third-party ISO 17025-certified<sup>8</sup> or a USDA laboratory and is required for invoice payment pursuant to the Invoicing Requirements clause of the contract.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> The ISO 17025 lab certification scope shall include the specific methods required in the CoA.

<sup>&</sup>lt;sup>9</sup> The CoAs must comply with the third-party ISO 17025 or USDA lab requirement within 12 months of MR27 CRD issuance.

Table 2: Limit of Microorganisms and Contaminants in Milled Rice and Fortified Rice

| Test   | IC/SU   | n | С | m    | М            | Report<br>Unit | Ref.<br>Methods          |
|--|---|---|---|------|--------------|----------------|--------------------------|
| Yeasts and molds<br>(cfu)  | I/10  | 5 | 2 | 1000 | 10,000       | /g             | ICC No 146<br>AACC 42-50 |
| Aflatoxin B1, B2,<br>G1 and G2. (ppb<br>[µg/kg])   | <mark>C</mark> /10                                | 1 | 0 |      | 10           |                | AACC 45-16               |
| Ochratoxin (ppb<br>[µg/kg])*   | NA 4  |   |   |      | AOAC 2000.03 |                |                          |
| Arsenic**<br>(inorganic)   | ≤ 0.20 mg/kg (ppm) – Finished Product AOAC 986.15 |   |   |      |              |                |                          |
| <ul> <li>Annotations:</li> <li>IC: Whether the testing sample is individual (I) or composite (c)</li> <li>SU: Sample Units</li> <li>n: Number of sub-samples to be examined</li> <li>c: Number of acceptable sample units between m andM</li> <li>m: maximum number of units per gram that are of no concern</li> <li>M: Maximum allowable number of units per gram in any one sub-sample.</li> <li>Any sub-sample with a number above M causes the rejection of the lot under consideration.</li> </ul> |   |   |   |      |              |                |                          |
| *Testing is not mandatory for lot release, but supplier monitoring is required and should be based on a HACCP-based risk analysis. Suppliers are to work with the USG contracting officer and food technologists to outline an appropriate monitoring plan. **CODEX STAN 193-1995  |   |   |   |      |              |                |                          |

## E. Fumigation

- 1. No more than ten (10) days prior to packaging, the milled rice and fortified milled rice shall be fumigated in a quantity and manner which will affect a kill in all stages of weevil or other insect infestation.
- 2. The Contractor shall submit with his invoice for payment a statement certifying that the rice was fumigated in accordance with this requirement.

## F. Shelf Life

1. Considering the lengthy supply chain for fortified rice intended to be used in international nutrition programs, the expected best used by date is twenty-four (24) months from the date of packaging<sup>10</sup>.

<sup>&</sup>lt;sup>10</sup>The shelf-life reference in this specification (24 months) is based on the food safety and overall quality of the milled rice, not on the shelf life of added micronutrients. Micronutrient payload in fortified kernels must take into account any corresponding dosage of micronutrients to offset any losses during cooking, preparation and throughout the supply chain. Ongoing effort/evidence regarding packaging and micronutrient stability is being gathered to more accurately quantify shelf-life of micronutrients.

## 1.4 INSPECTION

- A. The Contractor shall be responsible for arranging and obtaining U.S. Government, specifically the USDA Agricultural and Marketing Service (AMS9), official domestic and export weight and grade certificates. The Contractor shall notify the Government immediately of lots that fail to meet contract requirements.
- B. Failure of the lot to meet the average net weight requirement shall cause rejection of the involved lot pursuant to FAR clause 52.212- 4(a). (Contract Terms and Conditions— Commercial Items).
- C. If the product fails to meet contract specifications on one or more factors on the first inspection, the Contractor may arrange with the U.S. Government for subsequent inspections of the commodity. When subsequent inspections of the product are made, the results of the last inspection will be used as the basis for payment under the contract.
- D. The U.S. Government will perform a condition of container examination in accordance with the United States Standards for Condition of Food Containers (7 CFR Part 42) and the USDA Agricultural Marketing Service Handbook for Inspection of the Condition of Food Containers.
- E. The USDA sampling and testing quality assurance program is based on a lot size of no greater than 500 MT.

## PART 2 CONTAINER AND PACKAGING REQUIREMENTS

## 2.1 GENERAL

This part provides the container specifications and packaging materials requirements to be used for contracts under this Requirements Document.

For the purposes of Parts 2 and 3 of this specification, the following definitions apply:

- Container: a bin, other storage space, bag, box, or other receptacle for rice; the primary packaging used to package rice.
- Packaging: Primary or secondary, if applicable, packaging materials
- Materials: Any substance or matter used for primary or secondary packaging, if applicable.
- Labeling: Markings, text and graphics printed on or adhered to primary packaging.

## 2.2 CONTAINERS AND MATERIALS

- A The contractor shall obtain and maintain documentation from the container or packaging material manufacturer to verify that:
  - 1. All containers and packaging meet the requirements of the FDA for safe contact with the packaged product.
  - 2. The sum of the concentration levels of Lead, Cadmium, Mercury and/or Hexavalent Chromium present in any package or packaging component shall not exceed 100 parts per million (according to the Coalition of Northeast Governors (CONEG) model legislation).
- B. All containers and packaging materials shall be manufactured and assembled in the United States. The components that make up the materials of the containers and packaging shall be of U.S. origin to the extent that they are commercially available.
- C. Questions concerning the containers and materials should be directed to:

#### Mailing Address:

UNITED STATES DEPARTMENT OF AGRICULTURE Attention: Agricultural Marketing Service International Commodity Procurement Division MAILSTOP 8738 P.O. Box 419205 Kansas City, MO 64141-6205 AMS-IntlCommSpec@usda.gov

#### 2.3 BAGS

- A. Bags shall be sized to contain 50 kg net weight of product, or 1 kg to 25 kg as needed by the program. Net weights of less than 50 kg shall be discussed with U.S. Government contracting officer and food technologists in advance of making packaging changes; requirements will be specified in the solicitation/contract after feasibility discussions.
- B. Per lot, the product shall not, on average, be less than the weight declared on the packaging.
- C. A deviation of no more than  $\pm 2\%$  of the net weight is allowed by individual bag.
- D. The color of the fabric and sewing thread shall be white, unless otherwise specified.
- E. Rework product will be limited to excess material produced during the initial extrusion process and will be limited to the amount produced during normal continuous operation.
- F. The top and bottom of the bag shall be heat cut or otherwise finished to prevent fraying or unraveling of the fabric during distribution.
- G. Bags shall be sealed in a manner which prevents leaking or contamination, and minimizes infestation, through the seams during handling, storage, and distribution.
- H. The material shall be finished by coating or other suitable method to prevent slippage. Individual static friction (slide angle) test results shall be 28 degrees or greater (per <u>TAPPI</u> <u>Test Method</u>).
- I. The material shall accept and retain printing ink, including lot code, barcode, and best used by date, and that will not rub or flake off to a degree where legibility is impaired.
- J. Bags may be flat tube or gusseted.
- K. Bags may be extrusion coated. Extrusion coated bags shall have the proper number, size, and location of micro perforations to achieve the breathability required for product stability and fumigation, as well as filling and stacking/palletizing efficiency.

#### 2.4 1 KG TO 25 KG PRIMARY PACKAGING MATERIAL AND PERFORMANCE REQUIREMENTS

A The material used for milled and fortified rice packaging must be flexible, puncture and breakage resistant with breathability.

- 1. Bags must be micro-perforated in such a manner as to allow air evacuation while preventing pest infestation; micro-perforations shall be no larger than 150 microns.
- B. All bags shall be capable of withstanding the following performance tests for impact resistance.
  - 1. Testing shall be conducted at 104 °F (plus or minus 1.8 °F) and 75% relative humidity. Filled bags shall be placed in the conditioned atmosphere for sufficient time before the tests are conducted for the bag materials to come to equilibrium.
  - 2. Ten filled and sealed bags shall each survive a single drop test on the butt and side on a shock machine that produces for each test a velocity change of 195 inches per second using shock duration of .002 seconds, without loss of product.
  - 3. The bags shall be breakage resistant and have a puncture resistance of at least 850 grams from the outside when tested in accordance with <u>Test Method ASTM D1709</u> (Dart Drop Test, Test Method A).
  - 4. Bags submitted under this performance specification shall conform to all other applicable material, construction, and performance specifications.
- C. All bags shall have a sufficient amount of anti-block. It shall be free from any blocking at 50°C (122°F) and not subject to re-block at 70°C (158°F).
- D. Static coefficient of friction shall be a minimum of 0.5 (ISO 8295 or ASTM D1894).
- E. The use of recycled and other materials, and design for minimal packaging use, to improve environmental sustainability can be considered providing that the performance requirements are met, and the material used is compliant with the FDA regulation for food contact materials.
- F. 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.

#### 2.5 50 KG PRIMARY PACKAGING MATERIAL AND PERFORMANCE REQUIREMENTS

Contractors may utilize woven polypropylene fabric and circular-woven style bags for 50 kg bags but are not limited to these constructions. If woven poly bags are used, they must comply with section 2.3 and the following:

- A The polymer in the fabric shall be 100 percent virgin polypropylene with no recycled material. Rework product will be limited to excess material produced during the initial extrusion process and will be limited to the amount produced during normal continuous operation. A system to identify and document this process must be in place for review by the Government's audit personnel.
- B. The fabric in an unstressed state shall permit a minimum air flow of 3 cubic feet per minute per square foot and a maximum of 30 cubic feet per minute per square foot, when tested in accordance with ASTM Test Method D737, as amended.
- C. The fabric shall be capable of resisting ultraviolet deterioration for a minimum of 200 hours of

exposure in a weather meter, when tested in accordance with Test Method 5804-Federal Standard 191, as amended. The fabric shall retain 70 percent of its original minimum tensile strength in each direction, after 200 hours exposure, when tested in accordance with Test Method ASTM D 5034 (Grab Test), as amended.

## 2.6 TEST LABORATORIES

The contractor may use any independent or private laboratory that is capable of conducting the performance testing above. However, the Government is aware of only the following domestically located independent or private laboratories that have such capability:

| Michigan State University<br>School of Packaging<br>130 Packaging Building<br>East Lansing, MI 48824-1223<br>(517) 355-9580<br>www.canr.msu.edu/packaging/   | Lansmont Corporation<br>17 Mandeville Court<br>Monterey, CA 93940<br>(831) 655-6622<br><u>www.lansmont.com</u>                      |
|--|---|
| Rutgers University<br>Packaging Testing Laboratory<br>Busch Campus<br>137 Winchester Road,<br>Piscataway, NJ 08854-8029<br>(732) 445-5234<br><u>www.packaging.rutgers.edu/testing-</u><br>facility | Ten-E Packaging Services, Inc.<br>1666 County Road 74<br>Newport, MN 55055<br>(651) 459-0671<br><u>http://www.ten-</u> <u>e.com</u> |

## 2.7 TEST FREQUENCY

- A All specified testing shall be performed and documented, and all supporting test and quality control documentation shall be retained and made available for review by the Government for a minimum of three years after final payment under the contract.
- B. All tests shall be performed when a change in the formulation/design of the fabric or other packaging material is being made. In addition,
  - 1. The slide angle test, the air permeability and the ultraviolet resistance tests shall be performed annually.
  - 2. The slide angle test shall, as a minimum, be performed in-house for every 10,000 lineal meters of fabric production. Testing performed in- house is not required to be performed under the specified temperature and humidityrequirements.

## PART 3 MARKING REQUIREMENTS

## 3.1 GENERAL

This section provides guidance for commodities using 50 kg bags. Before batch printing a newly created or edited design, suppliers are encouraged to share design mockups with their procurement officer to ensure they meet the marking requirements outlined in this document.

## Logo Files

Note: Ensure that you are using the most current logo files, available here:

- USAID: <u>usaid.gov/branding/resources#downloads</u>
- USDA: <u>usda.gov/style-guide/logo</u>
- U.S. Flag: brand.america.gov/d/WrAFnKrhEEfk/our-brand#/visual-elements/the-u-s-flag

## 3.2 MARKINGS

- A. Colors shall match the Pantone Matching System (PMS) numbers as indicated below, to the extent practical. Any markings not shown on the exhibits shall be printed in blue.
  - USAID: Blue: 294; Red: 200
  - USDA: Blue: 288; Green 343 (When reproduced in one color, the symbol shall be black, or the dominant color used in the product)
- B. With the exception of the U.S. flag and USDA/USAID logos, all dimensions in this document are approximate.
- C. Unless otherwise specified, all characters shall be in normal block print using Gill Sans.

## D. U.S. Flag

The U.S. Flag shall be 7 inches high and 13  $\frac{3}{8}$  inches in total width on the front and back of the applicable bag.

## E. USDA Logo

The USDA logo shall be approximately 6 inches high and 9 ½ inches in total width.

#### F. USAID Logo

The USAID vertical identity, including the logo, brand name, and tagline, shall be printed in the same style as shown in the marking exhibits, sized approximately 7  $\frac{1}{2}$  inches high and 9  $\frac{3}{8}$  inches in total width.

#### G. Commodity Name

The commodity name ("MILLED RICE" or "FORTIFIED MILLED RICE") shall be 1 ¼ inch print. The name may run to a second line if needed, with a ¾ inch between lines. Immediately below the commodity name on the front and back panels, insert additional commodity description in 5⁄8 inch print (e.g., "LONG GRAIN," "MEDIUM GRAIN" or "PARBOILED") if applicable.

#### H. Additional Text

- The contract number and the statement "NOT TO BE SOLD OR EXCHANGED" shall be <sup>3</sup>/<sub>4</sub> inch print (if applicable, per SMR-1 and SMR-2)
- The net weight, bag dimensions, and the Standard Marking Requirements (SMR) or Language Marking Requirements (LMR) number shall be centered at the bottom of the bag in ½ inch print.
- For traceability purposes, manufacturer lot code, supplier name, production date (MM YYYY), and best if used by date (MM YYYY) shall appear on all packaging. Text shall be as small as possible, yet legible. Note that these markings are not included in the exhibits but must be included on printed bags.
- The symbol indicating "USE NO HOOKS" shall be 2 <sup>3</sup>/<sub>4</sub> inches in height.

## 3.3 STANDARD MARKING AND LANGUAGE MARKING REQUIREMENTS

A. **Standard Marking Requirement (SMR)**: The following SMRs may be requested under the contract:

## Standard Marking Requirement #1 (SMR-1)

#### **USAID** – Distribution

Front: U.S. Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, net weight, dimensions, "SMR- 1". Back: Identical to front.

#### Standard Marking Requirement #2 (SMR-2)

#### **FAS** - Distribution

Front: U.S. Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, net weight, dimensions, "SMR-2". Back: Identical to front.

Standard Marking Requirement #3 (SMR-3)

#### **USAID – Monetization**

Front: U.S. Flag, the commodity name, USAID logo, net weight, dimensions, "SMR-3".

Back: Identical to front.

<u>Standard Marking Requirement #4 (SMR-4)</u> **FAS - Monetization** Front: U.S. Flag, the commodity name, USDA logo, net weight, dimensions, "SMR-4". Back: Identical to front.

B. Language Marking Requirement (LMR): LMR specifications and mockups can be accommodated on an as-needed basis. Contact your procurement officer to request the necessary markings.

#### 3.4 EMPTY BAG DIMENSIONS

A. All bags shall be marked with the empty dimensions as follows:

| Gusseted          | Face Width X Gusseted Width X |
|-------------------|-------------------------------|
| Bags              | Finished Length               |
| Flat Tube<br>Bags | Face Width X Finished Length  |

#### 3.5 CONTAINERS WITH INCORRECT MARKINGS

- A. Any labels, bags, cans, can lids, cases, or any other type of packaging (hereinafter referred to as "containers") displaying incorrect markings may be used under a Government contract provided that the incorrect markings are obliterated, and correct markings are applied in a permanent manner with approval of the contracting officer.
- B. The appearance of containers in commercial or other channels either filled or unfilled bearing markings identifying the containers as part of a Government contract may cause the Government expense in determining whether commodities have been diverted from authorized use and in answering inquiries. The contractor shall take all necessary action to prevent the appearance in commercial or other channels of containers and container

materials bearing any markings required under a Government contract, including those held by the contractor or others, e.g., overruns, misprints, etc. The contractor shall ensure that any container from a Government contract that appears in commercial or other channels shall have all markings required under this contract permanently obliterated.

### 3.6 MARKING EXHIBITS

These exhibits provide a general framework for markings on the 50 kg bags. It is important to note that they are not inclusive of all marking/labeling requirements. It is incumbent on the supplier to reference the information in this document to ensure bag designs meet the respective requirements for each application.



