

PAKISTAN STANDARD SPECIFICATION  
FOR

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**MAIDA (2<sup>ND</sup> REVISION)**



COMPLIMENTARY

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COMPLIMENTARY FOR PROVINCIAL FOOD AUTHORITIES

**PAKISTAN STANDARD SPECIFICATION  
FOR  
MAIDA (2<sup>ND</sup> REVISION)**

**0. FOREWORD**

- 0.1 The Pakistan Standards was adopted by Pakistan Standards & Quality Control Authority, Standards Development Centre on **26-11-2019** after the draft finalized by the Cereal Pulses & their Products Technical Committee had approved by National Standard Committee of Agriculture and Food Products.
- 0.2 Atta shall be obtained from Wheat that has been washed and dried.
- 0.3 This standard PS:381 for Maida established in 1964 and firstly revised in 1983 and now the committee felt it to revise in the light of latest development in the industry.
- 0.4 In the preparation of this standard the views of the consumers, manufacturers technologists and testing authorities have been taken into consideration. Due weightage had to be given to the need for coordination between the standards in force in different countries of the world for promotion of international trade. This consideration led the technical committee responsible for the preparation of this standard.
- 0.5 This standard contains clauses 7.1, 7.1.1 and 7.1.2 which call for an agreement between the purchaser and the vendor.
- 0.6 This Standard is intended chiefly to cover the technical provisions relating to the supply of the material and it does not purport to include all the necessary revisions of a contract.
- 0.7 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with PS:103 for Method of Rounding off Numerical Values; the number of significant places retained in the standard.
- 0.8 All the ingredients and processes shall be in accordance with PS:3733 for Halaal Food Management System Requirements for any organization in the Food Chain.
- 0.9 In this standard the following verbal forms are used :
- “shall” .... Indicates a requirement.
  - “should” .... Indicates a recommendations.
  - “may” .... Indicates a permission.
  - “can” .... Indicates a possibility or capability.

1. **SCOPE**

- 1.1 This standard prescribes the requirements for Maida.

2. **TERMINOLOGY**

- 2.1 Maida used for making biscuits and bread shall be the product obtained by milling, cleaned hard or soft Wheat's or blends thereof in a roller flour mill and bolting. The Maida shall be free flowing dry to the touch should not pack. When squeezed should be in colour and free from any visible bran particles.

3. **GRADES**

- 3.1 The material shall be of two grades namely Maida for Biscuits Industry and Maida for Bread Industry.

4. **SAMPLING**

- 4.1 Representative samples of the material shall be drawn according to the method prescribed in Appendix-A.

5. **REQUIREMENTS**

- 5.1 The material shall have a characteristic taste and shall be free from musty flavor and rancid taste. The Material shall also be free from insect and fungus infestation, rodent contamination, dirt and other extraneous matter.
- 5.2 Microscopic Appearance – When the material is subjected to microscopic examination, starch granules shall have the characteristic appearance. The number of small granules shall be 4 to 5 times of the larger ones. The diameter of the smaller granules shall vary between 5 and 7 micron and that of the larger ones between 30 and 50 $\mu$ .
- 5.3 The material shall comply with the requirements given in Table-1.



**TABLE – 1**  
**REQUIREMENTS FOR MAIDA FOR BREAD AND FOR BISCUIT**

SL. No.	CHARACTERISCTIC	BREAD	BISCUITS
i.	Moisture, percent by percent by mass, max.	13.5	13.0
ii.	Protein (NX 5.7) percent by mass, (on dry basis) Min.	11.0	9.0
iii.	Gluten, (on dry basis) percent by mass.	19.00-34.00	19.00-34.00
iv.	Total ash, (on dry basis) percent by mass, max.	0.5	0.5
v.	Acid insoluble ash (on dry basis) percent by mass, max	0.05	0.05
vi.	Alcoholic Acidity (as H <sub>2</sub> SO <sub>4</sub> ) in 90 percent alcohol, percent by mass, max.	0.1	0.1
vii.	Water absorption, percent min.	55%	50 %
viii.	Sedimentation value, min.	30	22
ix.	Granularity Granularity – To satisfy the requirement of the test I	To satisfy the test	Appendix I

5.4 The product shall conform to the Table-II for Microbiological requirements.

**TABLE-II**  
**MICROBIOLOGICAL REQUIREMENTS**

S.#	Evaluation Criteria	Accepted Standard
i.	Bacillus cereus	Less than 1000 cfu/gms
ii.	Clostridium perfringens	Less than 100 cfu/gms
iii.	Yeast & mould	Less than 500 cfu/gm
iv.	Salmonella	Absent/25 gms

## 6. **PACKING AND MARKING**

6.1 Packing – The packages may preferably be of 100 g, 200 g, 500 g, 1 kg, 2 kg, 5 kg, and thereafter in multiples of 5 kg as desired by the purchaser.

6.1.1 For packages above 34 and 50 kg, unless otherwise agreed to between the purchaser and the vendor the material for packing in accordance with PS:3128 for Polypropylene Woven Sacks for Pooling and Transportation of Food items.

- 6.1.2 The bags used for smaller packs may be polyethylene bags or polyethylene line jute bags or any other suitable material as agreed to between the purchaser and the vendor.
- 6.1.3 The mouth of the bags shall be either machine stitched or hand stitched. If they are hand stitched, the mouth shall be rolled over and then stitched. The stitches shall be in two cross-rows with at least 14 stitches in each row for jute bags of 34 and 50 kg and above.
- 6.2 **Marking** – Each bag shall be suitably marked so as to give the following information :
- Name of the material,
  - List of Ingredients,
  - Name of the manufacturers,
  - Name and address of the manufacture;
  - Batch or code number,
  - Date of manufacture and Expiry,
  - Net weight,
  - Other labeling requirements according to the standards of Weights and Measures,
  - This Pakistan Standard number, PS: Mark and License number.

- 6.2.1 All markings shall be applied on the bags in such a manner that the dye or ink does not penetrate into the material.

## 7. **TESTS:**

The relevant Testing Method of PS, ISO, CAC and of other internationally recognized standard methods may be taken into account for analysis purpose

## **A P P E N D I X – A** **(CLAUSE 2.1)** **SAMPLING OF MAIDA**

### A. **GENERAL REQUIREMENTS OF SAMPLING:**

- A.1.0 In drawing, preparing, storing and handling samples, the following precautions and directions shall be observed.
- A.1.1 Samples shall be drawn in a protected place not exposed to rain, dust or soot.
- A.1.2 The sampling instrument shall be clean and dry when used,

- A.1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling instrument and the containers for samples from adventitious contamination.
- A.1.4 The samples shall be placed in clean and dry glass containers. The sample containers shall be of such a size that they are almost completely filled by the sample.
- A.1.5 Each container shall be sealed air-tight after filling and marked with full details of sampling, date of sampling, batch or code number, name of the manufacturer and other important particulars of the consignment.
- A.1.6 Samples shall be stored in such a manner that the temperature of the material does not vary unduly from the normal temperature.
- A.1.7 Sampling shall be done by a person agreed between the purchaser and the vendor and in the presence of the purchaser (or his representative) and the vendor (or his representative).

## **A.2 SCALE OF SAMPLING**

- A.2.1 **Lot** – All the bags in a single consignment of the material drawn from a single batch of manufacture shall constitute a lot. If the consignment is declared to consist of different batches of manufacture, the batches shall be marked separately and the groups of bags in each shall constitute separate lots.
- A.2.2 **Gross Sample** – For the purpose of drawing samples for test a number of bags shall be selected at random from a lot. The number of bags in relation to the size of the lot, or the scale of sampling, shall be subject to an agreement between the purchaser and the vendor. As a guide to such an agreement a scale of the size of the sample is suggested in **Table – II**.

**TABLE – II**

### **MINIMUM NUMBER OF BAGS TO BE SELECTED FOR SAMPLING FROM VARIOUS SIZES OF LOTS**

<b>LOT SIZE</b>	<b>SAMPLE SIZE</b>
2 to 8	2
9 to 27	3
28 to 64	4
65 to 125	5

126	to	216	6
217	to	343	7
344	to	512	8
513	to	729	9
730	to	1000	10
1001	to	1331	11

### A.3 **TEST SAMPLE AND REFEE SAMPLE**

A.3.1 **Preparation** – To prepare a set of test samples; drawn with an appropriate sampling instrument, from the top, middle and bottom part each bag in the gross sample about 0.75 kg of the material and mix thoroughly to form a composite sample of that bag. Divide the composite sample each bag into three equal parts, each part shall form a reduced sample for that bag. A set of such reduced samples, consisting of one reduced sample from each bag shall constitute the test sample.

A.3.2 Three sets of test samples, each sample being not less than 0.25 kg shall be transferred immediately to thoroughly clean and dry containers and sealed airtight. This shall be labeled with particulars given under A-1.5. One set of test samples shall be sent to the purchaser and one to the vendor.

A.3.3 Refree Sample – The third set of test samples, bearing seal of the purchaser and the vendor, shall constitute the referee sample, to be used in case of dispute between the purchaser and the vendor. It shall be kept at a place agreed between the purchaser and the vendor.

### A.4 **TEST FOR ACCEPTANCE**

A.4.1 Examination and Tests – The purchaser may examine and test each of the reduced samples constituting a test sample separately for compliance with the requirements of this standard or person may prepare; for the purpose of such examination and at any stage of the progress of the examination, a composite sample representative of the whole lot, by mixing all the reduced sample constituting the test sample.

- A.4.2 Criterion of Judgment – When the individual reduced samples in a test sample are separately examined and the results vary from one reduced sample to another, the criterion for judging the quality of the lot for the purpose of acceptance on the basis of the results obtained shall be at the discretion of the purchaser, unless otherwise previously agreed between the purchaser and the vendor.

**APPENXIX - I**

**(TABLE – 1, Item (viii))**

**DETERMINATION OF GRANULARITY**

I.1 REAGENTS:

- I.1.1 Transfer about 10 g of the material to sieve (aperture 0.500 mm) and sieve for 2 minutes. Brush the upper surface of the sieve and sieve again for one minutes.
- I.1.2 The material shall be considered to have satisfied the test if no residue is left on the sieve.

NOTE:- So long as PS Sieve (conforming to PS:392-1964) is not available, BS Test Sieve 30, ASA Test Sieve 35, Test Sieve or IS Sieve 50 may be used.

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