

**PAKISTAN STANDARD SPECIFICATION  
FOR  
CHILLI (RED PEPPER) POWDER  
(3<sup>RD</sup> REVISION)**



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**PAKISTAN STANDARDS AND QUALITY CONTROL AUTHORITY**  
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**0. FOREWORD**

- 0.1 This Pakistan Standard was adopted by the Pakistan Standards & Quality Control Authority, Standards Development Centre on 31-08-2022 after the draft finalized by the Spices and Condiments Technical Committee, had been approved by the National Standards Committee for Agricultural and Food Products.
- 0.2 Pakistan Standards & Quality Control Authority, laid down this standard specification on Chilli Powder in 1985, first revised in 1997 and secondly revised in 2010, Now the committee felt it necessary to revise in the light of latest development made in the Industries in this field.
- 0.3 Chillies (Red Peppers or Lal Mirch) are one of the important and commonly used materials for Spicing in the Pakistani dish. They are marketed as dry whole pods as well as in the ground form.
- 0.4 This Pakistan Standard is intended chiefly to cover the technical provisions relating to Chilli (Red Pepper) Powder and it does not purport to include all the necessary provisions of a contract.
- 0.5 International System has been adopted in Pakistan and all quantities and dimensions appearing in this standard have been given in this standard.
- 0.6 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 Methods for Rounding Off Numerical Values, the number of significant placed retained in the rounded off value shall be the same as that of the specified value in this standard.
- 0.7 All the ingredients preparation, processing, packaging storage and for transportation shall be according to PS:3733 for Halaal Food Management System Requirement for any Organization in the Food Chain.

**1. SCOPE**

- 1.1 This Pakistan Standard specifies requirements for Chilli (Red Pepper or Lal Mirch) powder.
- 1.2 This standard does not cover dry whole chillies.

## 2. REQUIREMENTS

### 2.1 Description

Chilli Powder (Red Peppers) – This is the product obtained by grinding whole chillies (capsicum frutescens (Linnaeus) Caspicum annum L or any spices. It is in the form of a powder of characteristics colour from red to orange red.

### 2.2 ODOUR AND TASTE

The odor should be characteristics, causing, sneezing but not disagreeable. The taste should be acrid very strong, very hot and persistent.

### 2.3 Freedom from visible moulds, visible insects etc; ground chillies free from living insects or moulds, and should be practically free from dead insects fragments.

#### 2.3.1 TOTAL AFLATOXINS. B<sub>1</sub> + B<sub>2</sub> + G<sub>1</sub> + G<sub>2</sub> should be equal to or less than 30 ppb or 30 microgram / kg.

**NOTE: The grace period for the implementation of above parameter is two years.**

It shall be free from extraneous matter, added coloring matter, foreign oils, flavoring matters, preservatives.

#### 2.3.2 COLOURS: Free from added colors.

### 2.4 The Chilli (Red Peppers) Powder should also comply with the requirements given in Table -1

**TABLE – 1**

#### **REQUIREMENTS FOR CHILLIES (RED PEPPERS) POWDER**

| Sl # | Characteristics                                   | Requirements | Ref. to AOAC(16 <sup>th</sup> edition)1998 Methods Concerning Spices & Condiments |
|------|---|--------------|---|
| 1.   | Moisture % age max.                               | 10           | AOAC 43.1.03  |
| 2.   | Total ash % age on dry basis, max.                | 8.0          | AOAC 43.1.05  |
| 3    | Ash insoluble in HCl acid %age on dry basis, max. | 1.3          | AOAC 43.1.05  |
| 4.   | Non-volatile ether extract %age on dry basis, min | 12           | AOAC 43.1.07  |
| 5.   | Crude fiber %age on dry basis, max.               | 28           | AOAC 43.1.12  |

### 2.5 The Chilli Powder (Red Pepper) should be manufactured and packed under hygienic conditions and also comply with the requirements given in Table – 2.

**TABLE – 2****MICROBIOLOGICAL REQUIREMENTS FOR CHILLI POWDER**

| <b>S.No</b> | <b>Microbiological parameter</b> | <b>Limits</b> |
|-------------|----------------------------------|---------------|
| 1           | E. coli (CFU/g)                  | <100          |
| 2           | Enterobacteriaceae (CFU/g)       | <1000         |
| 3           | Staph Aureus (CFU/g)             | <100          |
| 4           | Yeast/ Mould (CFU/g)             | <100000       |
| 5           | Salmonella (CFU/25 g)            | Absent        |
| 6           | Clostridium                      | <100          |
| 7           | Bacillus Cereus                  | <1000         |

**3 SAMPLING**

- 1.1 Representative samples of the material shall be drawn and tested for conformity to this specifications s as described in Appendix – A of this standard.

**2. PACKING AND MARKING:**

- 2.1 Packing – The chillies (Red Peppers) Powder should be packed in small individual containers, which are clean, hygienic and of material not likely to add any constituent to or remove any constituent from the product for example, containers of tinplate or glass card board boxes with water proofing on the inside, water proof bags etc.

These packages should be hermetically sealed and their contents may be 250 gm, 500 gm, 1 kg, or if requested less than 250 gms or more than 1 kg.

- 2.1.1 A suitable numbers of small containers should be packed in wooden or card board cases.

- 2.2 **MARKING** – the following information should be marked on each package, or on a label.

- a. The name of the product and trade name or brand name if any.
- b. Name and address of the manufacturer.
- c. Batch or code Number.
- d. Date of manufacture and best before.
- e. Net weight
- f. Pakistan Standard Number, Mark and License Number.

**3. METHODS OF TEST**

- 5.1 The relevant testing methods of ISO, CAC, and of other internationally recognized standard methods, may be taken in to account for analysis purpose.

**APPENDIX – A**  
**SAMPLING PROCEDURE FOR SPICES AND CONDIMENTS**

**A.1 SAMPLING**

A.1.1 Sampling shall be carried out by a persons, appointed by agreement between buyer and sellers, and, if, desired by either of then in presence of the buyer (or their representative) and of the sellers (or their representative).

A.2 In taking, preparing, storing and handling, the samples, care shall be taken that the properties of the product are not affected. The following precautions and directions shall be observed.

A.2.1 The sampling apparatus shall be clean and dry.

A.2.2 Precautions shall be taken to protect the samples, the products being sampled and the sample containers from adventitious contaminations.

**A.3 APPARATUS**

The apparatus required falls under the following head.

**A.3.1 SAMPLING FROM BAGS.**

Sack-type spears or tiers.

**A.3.2 MIXING AND DIVIDING**

Shaves and dividing apparatus

**A.4 CONSTITUTION OF LOTS.**

All the containers in single consignments of spice of condiments pertaining to the same variety, year of product and grade shall constitute a lot.

If a consignment is declared or is known to include differences in varieties, different classes or different years of productions or if it appears that the lot is heterogeneous, the containers holding products of similar characteristics shall be group together and each group thus obtained shall constitute a separate lot.

**A.5 METHOD OF TAKING INCREMENTS**

A.5.1 The number (n) of containers to be taken from a lot in a stationary stack depends on the size of the lot and shall be in accordance with the following Table.

| <b>Lot Size (II)</b> | <b>Number of containers to be taken (n)</b>                        |
|----------------------|--|
| 1 to 5 containers    | All containers   |
| 6 to 49 containers   | 5 container  |
| 50 to 100 containers | 10 % of the containers   |
| Over 100 containers  | The square root of containers rounded to the nearest whole number. |

These containers should be, as far as possible be taken at random from the lot, as in order to achieve this, a random number table, agreed upon between the buyer and seller should be used. If such a table is not available, the following procedures shall be adopted

Starting from any containers, count the containers, as 1,2,3,.....etc; up to or and so on.

Withdrawn from the lot every  $r^{\text{th}}$  containers thus counted for sampling the value  $r$  is equal to  $\frac{N}{n}$

Where,

$N =$  is the total number of containers in the lot,

$n =$  is the number of containers to be taken (see Table)

If  $r$  is a fractional number its values shall be taken as equal to the integral part of it.

A.5.2 When the products are in movements samples may be taken at the time of loadings or unloading of the containers. For purpose the number of containers, to be taken shall also be in accordance with the tables. The value of  $r$  shall be calculated as indicated above and every  $r^{\text{th}}$  container counted during loading or unloading shall be removed for sampling.

A.5.3 Take increments, by means of appropriate sampling instruments, from different parts of each container selected.

#### A.6 **BULK SAMPLE**

Thoroughly mix all the increments taken as described above to form the bulk Sample. The size of the bulk sample shall be more than three times the quantity of sample required to carry out all the tests required by the individual specifications for spice or condiments.

#### A.7 **LABORATORY SAMPLES**

Divide the bulk sample into three or more equal parts according to the number of laboratory samples required. Each part thus obtained constitutes a laboratory samples; one of these samples is intended for the buyer and another for the sellers. The third sample bearing the scales of the buyer and the sellers (or of their representatives) if they were present at the time of sampling or of the persons who samples the lot shall constitute the references samples to be used in the case of disputes between buyer and seller, it shall be kept at a place acceptable to both parties.

## **A.8 PACKAGING AND LABELLING OF SAMPLES**

### **A.8.1 PACKAGING OF SAMPLES**

The laboratory samples shall be placed in clean, dry airtight glass containers or other suitable containers which have no action on the product. The samples containers shall be of such sizes that/they are a most completely filled by the sample. Each sample containers, after filling, shall be made airtight by mean of a stopper or other suitable closure and sealed in such a way that it cannot be opened and re-sealed without detection.

### **A.8.2 LABELLING OF SAMPLES**

The laboratory sample shall be labeled to give information concerning the samples and full details of the sampling i.e.

- The date of sampling;
- The name and address of the person taking the sample;
- The name of product
- The grade
- The variety
- The year of production.

### **A.8.3 STORAGE AND DISPATCH OF SAMPLES**

The laboratory samples shall be stores in such a manner that the temperature of the products does not very unduly from the normal atmospheric temperature. Sample which is required to be kept for a long time shall be stored in a cool and dark place. Laboratory samples on which an analysis is to be carried out shall be dispatched to the laboratory as soon as possible.

### **A.8.4 SAMPLING REPORT**

If sampling report is prepared, besides, giving the usual information it shall make reference to the conditions of the spice of condiment sampled, to the technique applied if this is other than described in this standard, and to any circumstances that may have influenced the sampling.