

# SORGHUM GRAINS

## SCOPE

This standard specifies sorghum grains (as defined in Clause 2 of this standard) for human consumption and shall not apply for products derived from sorghum grains.

## DEFINITIONS

They are whole or decorticated grains obtained from the species of Sorghum bicolor L Moench

## WHOLE SORGHUM GRAINS

They are sorghum grains obtained after a complete threshing process without any further treatment on them

## DECORTICATED SORGHUM GRAINS

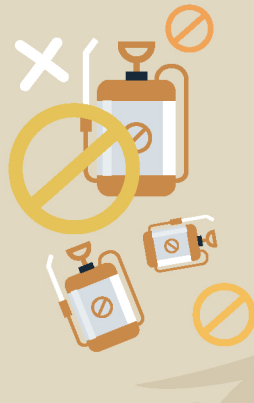
They are sorghum grains from which the outer layers and the germs have been removed completely or partially using mechanical treatment (with max level 20 %)

## REQUIREMENTS

### GENERAL REQUIREMENTS:

Sorghum grain shall have the following general requirements

- 1 Shall have their characteristic taste, odors and odor and free from abnormal odor and taste.
- 2 Free from insects and their fragments, rodents and their remains and birds remains.
- 3 Clean and free from insect infestations and visual mold growth
- 4 Safe and shall not contain toxic seeds or hazards to human health.
- 5 Whole Sorghum grains shall not be genetically modified



## TECHNICAL REQUIREMENTS

Sorghum grains shall have the properties according to the limits stated in the following

<b>MOISTURE (MAX)</b> ■ 12,5 ■ 12,0 ■ SDS 487:2010	<b>TANNIN (MAX)</b> ■ 0,5 ■ 0,3 ■ SDS 4443:2009
<b>ASH (MAX)</b> ■ 2,1 ■ 1,5 ■ SDS 1015:2014	<b>BROKEN SEEDS (MAX)</b> ■ 2 ■ 5 ■ CLAUSE 10.2
<b>PROTEIN CONTENT (MIN)</b> ■ 8 ■ 7,0 ■ SDS 1016:2016	<b>FOREIGN MATTERS (MAX)</b> ■ 3 ■ 1,0 ■ CLAUSE 10.3
<b>FAT (MAX)</b> ■ 5 ■ 2 ■ SDS 4778:2016	<b>FAT ACIDITY (MAX)</b> MG KOH/100 G SEED ■ 50 ■ 40 ■ SDS 1163:2010

\*CALCULATED ON DRY MATTER BASES

- WHOLE SORGHUM GRAINS
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- TESTS METHODS

\* Heavy metals and mycotoxins in sorghum grains shall not exceed the limits stated by SDS 2842-1:2014 (Grains contaminants Part 1: Mycotoxins and heavy metals).

\* Pesticides residues in sorghum grains shall not exceed the permissible limits stated by SDS 2842-2:2015 (Grains contaminants — Part 2: Pesticides residues).

\* Microbial content in sorghum grains shall not exceed the limits stated by SDS 4139-1: 2014 (Microbiological limits in food).

\* Radiation level in Sorghum grains shall not exceed 10 Bickerel/kg

## SAMPLING

Samples shall be withdrawn in accordance with the Sudanese Standard SDS 1005 :2014 (Sampling of grains)

## PACKAGING

Sorghum grains shall be packed in sound, clean, containers which has never been used before and shall not lead to plastication of the grains and shall meet the requirements of SDS2390 (Plastic sacks for food stuff substances)



## LABELLING

In addition to the requirements stated in SDS 2889:2015 (Packed Food or Label Specification) the following information shall be shown on the package and the paper documents whereas for bulk material information shall be on the paper documents only

PRODUCT NAME	NAME OF THE PRODUCERS AND TRADE MARK	DATE OF PRODUCTION & EXPIRATION (MONTH/YEAR)	COUNTRY OF ORIGIN	NET WEIGHT BY KG OR ITS UNITS
SORGHUM GRAINS (WHOLE OR DECORTICATED)	© ®	DATE	🌍	KG

## SHELF LIFE

Two years from the date of harvest

## STORAGE

- Sorghum grains shall be stored in clean premises, well ventilated and not been used before for storage of hazardous material for human health.
- The stores shall protect the grains from damage caused by insects, rodent, other pests and moisture.
- Storage facilities shall maintain the physical, chemical and technological properties of the grains and shall meet the requirements of SDS 3891 (Food store)

## TRANSPORTATION

- Sorghum grains shall be transported in such a way to protect them from atmospheric change, insect and rodents, contamination and mechanical damage.

- Means of transport shall be clean and have not been used for transporting pesticides, herbicides or any toxic or pungent substances

## TEST METHODS



Sorghum grains properties shall be tested according to the methods included in the table stated in Clause 3.2.1 of this standard.

Broken kernels shall be tested using a sieve with 1 mm - 1,75 mm aperture then weighed and calculated as percentage of total sample weight (100 g).

Foreign grains shall be tested by visual isolation then weighed and calculated as percentage of total sample weight (100 g)

## REFERENCES

1. Codex Alimentary - Codex Standard 173-1989.
2. Egyptian Standard, BS 2909:2005 (Sorghum grains)