
Whole Milk Powder

STB 1858-2022

Whole milk powder is produced from pasteurized and standardized cow's milk by removing water through concentration and spray drying. It is intended for direct consumption (after reconstitution) and industrial food processing. The product has a high dry matter content, ensuring excellent transportability and long shelf life.

Milk retains high nutritional, energy, and biological value due to the concentration of its natural components.

Grades:

Based on microbiological and physicochemical indicators, whole milk powder is classified into two grades: **"Extra"** and **"Standard."**

Organoleptic Properties:

- A small number of lumps that crumble easily under mechanical impact is allowed.
- Color: white with a slight creamy tint.
- Taste and odor: characteristic of fresh pasteurized milk.

Physicochemical and Microbiological Indicators:

Parameter	Requirement
Fat content, % (min):	≥26.0
Moisture content, % (max):	≤4.0
Protein (in dry skimmed milk residue), % (min):	≥34.0
Solubility index, cm ³ (max):	≤0.2
Lactose content, %:	31.5–37.0 ("Extra"), 31.5–38.7 ("Standard")
Scorched particles:	Disc B
Acidity, °T:	15–19

Parameter	Requirement
Lactic acid content, %:	0.135–0.171
Total mesophilic aerobic and facultative anaerobic microorganisms (CFU/g):	10,000 – max. 50,000
Coliform bacteria:	Not detected in 0.1 g
Salmonella spp.:	Not detected in 25 g
Staphylococcus aureus:	Not detected in 1.0 g
Listeria monocytogenes:	Not detected in 25 g
Heavy metals and contaminants:	
- Lead (mg/kg)	≤0.1
- Arsenic (mg/kg)	≤0.05
- Cadmium (mg/kg)	≤0.03
- Mercury (mg/kg)	≤0.005
Aflatoxin M1 (mg/kg):	≤0.0005
Antibiotics:	Chloramphenicol, Tetracycline, Streptomycin, Penicillin: Not detected
Pesticides:	
- Hexachlorocyclohexane (α, β, γ-isomers)	≤1.25 mg/kg
- DDT and metabolites	≤1.0 mg/kg
Radionuclides:	
- Cesium-137	≤370 Bq/kg
Shelf Life:	
24 months from the date of manufacture when stored at temperatures between 0°C and 20°C and a relative humidity of ≤85% .	

Packaging:

- **Consumer packaging:** 500 g net weight.
- **Transport packaging:** 25 kg net weight (multi-layer paper bags with polyethylene inner liner).