

# Instant Dry Whole Milk (IDWM) Standard

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## Product Definition

Instant Dry Whole Milk is dry whole milk which has been produced in a manner to substantially improve its dispersing and reconstitution characteristics. IDWM for human consumption complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

## Composition/Specifications for Extra Grade IDWM

Classifications	Fat	Moisture	Titrateable Acidity	Solubility Index	Scorched Particles
Extra Grade IDWM	Min. 26% Max. 42%	Max. 4.5%	Max. 0.18%	Max. 1.0 ml	Max. 15.0 mg

## Other Characteristics

Dispersibility	Min. 85%
Color	White to cream
Flavor	Sweet, Pleasing, Desirable

## Microbiological Analysis

Standard Plate Count	≤ 10,000 cfu/g
Coliform	≤ 10 cfu/g
Salmonella	negative
Listeria	negative
Yeast & Mold	≤ 100 cfu/g
Coagulase positive Staphylococci	≤ 10 cfu/g

**Reconstituted Extra Grade instant dry whole milk** shall be sweet, pleasing and desirable. It may possess a slight feed flavor and a definite cooked flavor. It shall be free from undesirable flavors. The product shall be white or light cream in color, free from lumps that do not break up under slight pressure, and practically free from visible dark particles. The re-liquefied product shall be free from graininess.

## Oxygen Content

Oxygen content (if gas packed) is not a U.S. grade requirement. When oxygen content is determined for grading purposes, the results will be reported as follows:

Oxygen Content  
Not more than 6%  
Or,  
Oxygen content \_\_\_\_\_%

## **Optional Tests**

Copper content**	not more than	1.5 ppm
Iron content**	not more than	1.0 ppm
Vitamin addition (when fortified)	not less than	200 I.U. Vitamin A* 40 I.U. Vitamin D*

\*IU/100 ml

\*\*Copper & Iron test not needed if oxygen content is < 6%

## **Methods of Analysis (see pages 66-102)**

<b>Criteria</b>	<b>Reference Method</b>
Dispersibility	Modified Moats-Dabbah Method
Fat	AOAC 989.05
Total Moisture	AOAC 925.45
Titrateable Acidity	AOAC 22.060
Solubility Index	ISO 8156/IDF 129
Scorched Particles	ISO 5739/IDF 107

## **Product Labeling**

Product should be labeled as: “Instant Dry Whole Milk (\_\_\_\_\_ % milkfat)”. If vitamins are added, appropriate declaration shall appear on the package.

## **Typical Product Applications**

Dry blends, confectionery, bakery products, packaged dry mixes, dairy products, soups, sauces, frozen foods, beverage use

## **Storage & Shipping**

Product should be stored and shipped in a cool, dry environment with temperatures below 80°F and relative humidities below 65%. Stocks should be rotated and utilized within 6 - 12 mo.

## **Packaging**

Multiwall kraft bags with inner multiple-layer barrier liner or other suitable packaging – i.e., “tote bins,” etc. Product also packaged in smaller sizes for retail sale.