Margarine

Revised 2018

Storage Conditions

Temperature	10-18°F (-12 to -8°C)	32-39°F (0-4°C)
Humidity	40-60%	40-70%
Storage Period	6 months	Up to 90 days

Background

Margarines are classified as follows:

A. All-vegetable margarine

1. Stick style, US standard 80% fat, and spread, 60% fat
2. Soft style, standard 80% fat, and spread, 60% fat
3. Liquid style standard, 80% fat
4. Patties, standard, 80% fat
5. Whipped, standard, 80% fat

B. All-animal margarine

1. Stick style, standard, 80% fat
2. Spread, 60% fat
3. Soft style, 80% fat

C. Animal-vegetable blend

1. Stick style, 80% fat of which about 90% is animal fat and 10% vegetable fat
2. New blends which may have much more of the vegetable fat

D. Diet margarine

1. Less than 40% partially hydrogenated fat

Margarine can be produced using either hydrogenated oil stock or blends of hydrogenated and non-hydrogenated (liquid) fractions of stock. Thus margarines may have differing ratios of polyunsaturated to saturated fatty acids. Margarines differ in melting points and in physical properties, and this determines the type of packaging needed and the stacking conditions required.

Margarine is normally packed in the following ways:

a) Four 1/4 lb. quarters individually wrapped in parchment or foil in one package, 30 lbs. to a box, called Eastern flats

b) Four 1/4 lb. quarters individually wrapped in foil in one package, 12 lbs. to a box, called Western style

c) Two ½ lb. plastic tubs in a sleeve, 24 lbs. to a box

d) Two ½ lbs. mugs or tumblers in a sleeve, 24 lbs. to a box

e) 1-lb. or 2-lb. plastic bowls as is or in a sleeve, 24 lbs. to a case

f) 1-lb. solid in parchment wrap, 30 lbs. to a box

g) ½-lb. rolls in cellophane (Country Roll), 24 or 12 pounds per case

h) Pre-cut "Reddies", or patties 72 or 90 count per pound, Restaurant style, 20 lbs. per box

i) 50 lbs. polyethylene-lined carton board box

Style	Per Layer	Boxes High	Total per Pallet
a. 4 x 1/4# x 30# Eastern style	10	7	70
b. 4 x 1/4# x 12# Western style	15	10	150
c. 2 x 1/2# x 24# Tubs	8	6	48
d. (1) 2 x 1/2# x 18# Mugs (2) 2 x 1/2# x 15# Tumblers	 6 9	 10 6	 60 54
e. 1# plastic bowl x 24#	7	5	35
f. 1# solids x 30#	14	5	60
g. (1) 1/2# Country Roll x 12# (2) 1/2# Country Roll x 24#	 15 7	 10 7	 150 49
h. Reddies - 72 or 90 count	12	5	60
i. 50# polyethylene lined	8	5	40

The use of storage racks is highly recommended to limit mechanical damage to the packaged margarines.

Recommendations for temperatures of storage and for stacking margarine depend on the types of fat present, the firmness of the fat, the percent fat, whether the fat is whipped, and the type of package.

Standard fat (80%), firm margarines, shipped margarine, and patties preferably should be stored at 10-18°F (-12 to 8°C); at above freezing storage temperatures, the relative humidity should not exceed 70%.

Diet margarines (less than 40% fat), liquid fat type margarines (80%), and spreads (60% fat margarines) should not be frozen. Freezing may cause breakdown of the emulsion and weep of oil.

When temperatures increase to a point where certain margarine fats soften, or liquefy, then stacking of cases unusually high results in pressures sufficient to cause oiling-off, or wicking of oil, especially in bottom cases.

Margarine types containing lesser amounts of fat, and correspondingly greater amounts of moisture may exhibit mold growth and weight loss when stored at temperatures above freezing, especially when packed in tubs with less tight covers. Excessive air movement above the surface of the margarine may result in color change (concentration) in the top layer. Adequate air circulation should be provided, however, to avoid condensation of moisture on packages, which will result in growth of molds.

Under normal conditions, margarine is expected to move into the trade within 45 days after the date of manufacture. A pull date of 90 days is considered reasonable for higher moisture and whipped margarines, particularly because of mold potential, and up to 6 months for standard stick-type margarine.

Margarine, like other fat products, readily absorbs odors from the atmosphere. It must be stored away from foods such as onions, apples, or smoked meats.

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