

Lecithin in Chocolate & Confectionary

Lecithin is one of the most widely used functional ingredients in chocolate and confectionery manufacturing. It acts primarily as an emulsifier and flow modifier, helping manufacturers achieve the desired viscosity, texture, processing efficiency, mouthfeel and product consistency. For chocolate manufacturers, lecithin is particularly valuable because it can improve flow while reducing the amount of cocoa butter required to reach the desired processing characteristics.



Key Functions of Lecithin in Chocolate

1. Improves Chocolate Flow

Lecithin reduces the resistance to flow of chocolate mass, making it easier to pump, deposit, mould and coat products. This is particularly important for moulded chocolates, enrobing and filling applications.

2. Reduces Viscosity

Small quantities of lecithin can significantly influence chocolate viscosity. This allows manufacturers to achieve the required processing viscosity without relying entirely on additional cocoa butter.

3. Improves Processing Efficiency

Better flow characteristics can support smoother movement through processing equipment, including conches, tempering systems, pumps, moulders and enrobers.

4. Supports Smooth Texture

Lecithin helps promote uniform distribution of fat and other components within the chocolate matrix, contributing to a smooth and consistent eating experience.

5. Helps Manage Fat Usage

By improving flow properties, lecithin can help optimize cocoa butter and total fat usage, potentially providing formulation flexibility and cost-management benefits.

6. Supports Consistent Production

A properly selected and dosed lecithin can help maintain consistent viscosity and processing behaviour across production batches.

Lecithin in Different Confectionery Applications

Chocolate Bars

Lecithin helps control viscosity during refining, conching and moulding, supporting good flow and a smooth final texture.

Compound Chocolate & Coatings

It can improve coating flow and spreading characteristics, making it useful for biscuits, wafers, bars, nuts and other enrobed products.

Pralines & Filled Chocolates

Controlled viscosity is important for depositing chocolate shells, fillings and coatings accurately. Lecithin can help provide the required flow characteristics.

Chocolate Spreads

Lecithin can support emulsification and contribute to a smooth, stable and easily spreadable product.



Caramel & Toffee

In selected formulations, lecithin can help with emulsification, processing and control of sticking, while contributing to a smoother finished product.

Wafers, Biscuits & Chocolate-Coated Products

Lecithin can improve chocolate coating flow, helping achieve uniform coverage and efficient processing.

Property	Soy Lecithin	Sunflower Lecithin
Emulsification	Excellent	Excellent
Chocolate viscosity control	Excellent	Excellent
Chocolate & Confectionery use	Widely established	Increasing preferred
Allergen consideration	Soy allergen declaration	Attractive
Non-GMO positioning	Available	Naturally attractive
Consumer perception	Established ingredient	Clean label
Typical forms	Liquid & powder	Liquid & powder

For European-facing chocolate and confectionery applications, sunflower lecithin can be particularly attractive where manufacturers are looking for soy-free, allergen-conscious and non-GMO ingredient solutions, subject to the specific regulatory and formulation requirements of the market.

Recommended Lecithin Selection

For chocolate manufacturers, the most important parameters are not simply lecithin purity but its functional performance in the specific chocolate system.

Important parameters include:

- Phospholipid content
- Acetone-insoluble matter
- Moisture
- Colour
- Viscosity
- Dispersibility
- Emulsification performance
- Batch-to-batch consistency
- Odour and flavour neutrality
- Non-GMO status
- Allergen profile
- Food-grade compliance



Typical Application Approach

Lecithin is generally used at low dosage levels, with the optimum level determined through formulation trials. Excessive lecithin does not necessarily improve chocolate flow and can adversely affect rheology or sensory characteristics. The optimum dosage therefore depends on the chocolate recipe, cocoa solids, fat content, particle size, processing conditions and desired viscosity.

Why Lecithin Matters to Chocolate Manufacturers?

Better Flow



Lower Processing Resistance



Efficient Pumping & Depositing



Consistent Texture



Reliable Production