



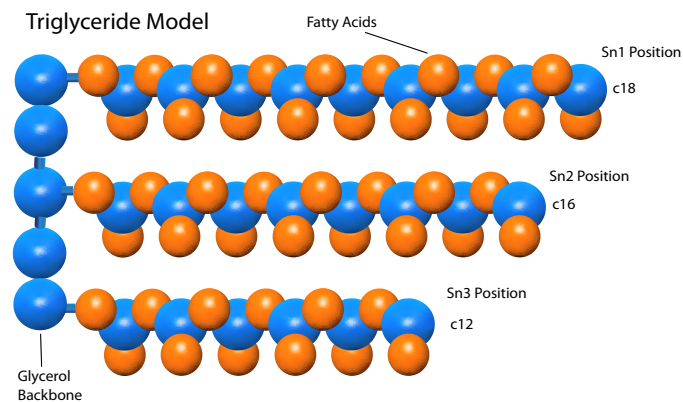
UltraBlends

Enzymatic Solutions

Utilizing a unique enzymatic process, Bunge Oils brings you a new line of shortenings and oils. These products eliminate trans fat and optimize saturated fats, while delivering superior functionality, great taste and the quality you and your customers demand.

What is Enzymatic Interesterification?

Shortenings, margarines and oils are comprised of building blocks known as triglycerides. Triglycerides are either liquid or solid at room temperature. Enzymatic Interesterification, the unique process by which Bunge produces UltraBlends Enzymatic Solutions, is a proprietary process of rearranging the fatty acids to provide structure and functionality at room temperature.



In Bunge's proprietary process, the oil blend flows through a fixed bed system to achieve optimal interesterification. This interesterification "cartridge" consists of an oil purification bed and an enzyme bed. The oil purification bed removes impurities from the oil blend so that the enzyme activity can be maintained at its highest performance. The enzyme bed allows for the enzymatic interesterification of the oil blend as the blend passes through the bed.

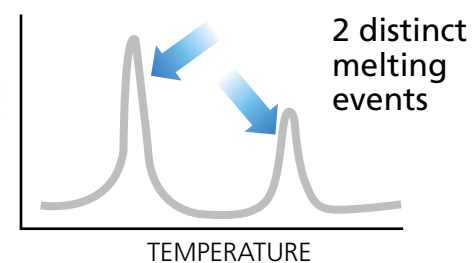
The product exiting the system has achieved the optimal interesterification specified by the Bunge product designer. By utilizing these fixed bed or "cartridge" systems, Bunge is able to maximize enzyme performance and product consistency. When the performance of a "cartridge" begins to decrease, a replacement is brought on-line to maintain highest levels of consistency in finished products.

Recommended for the following applications:

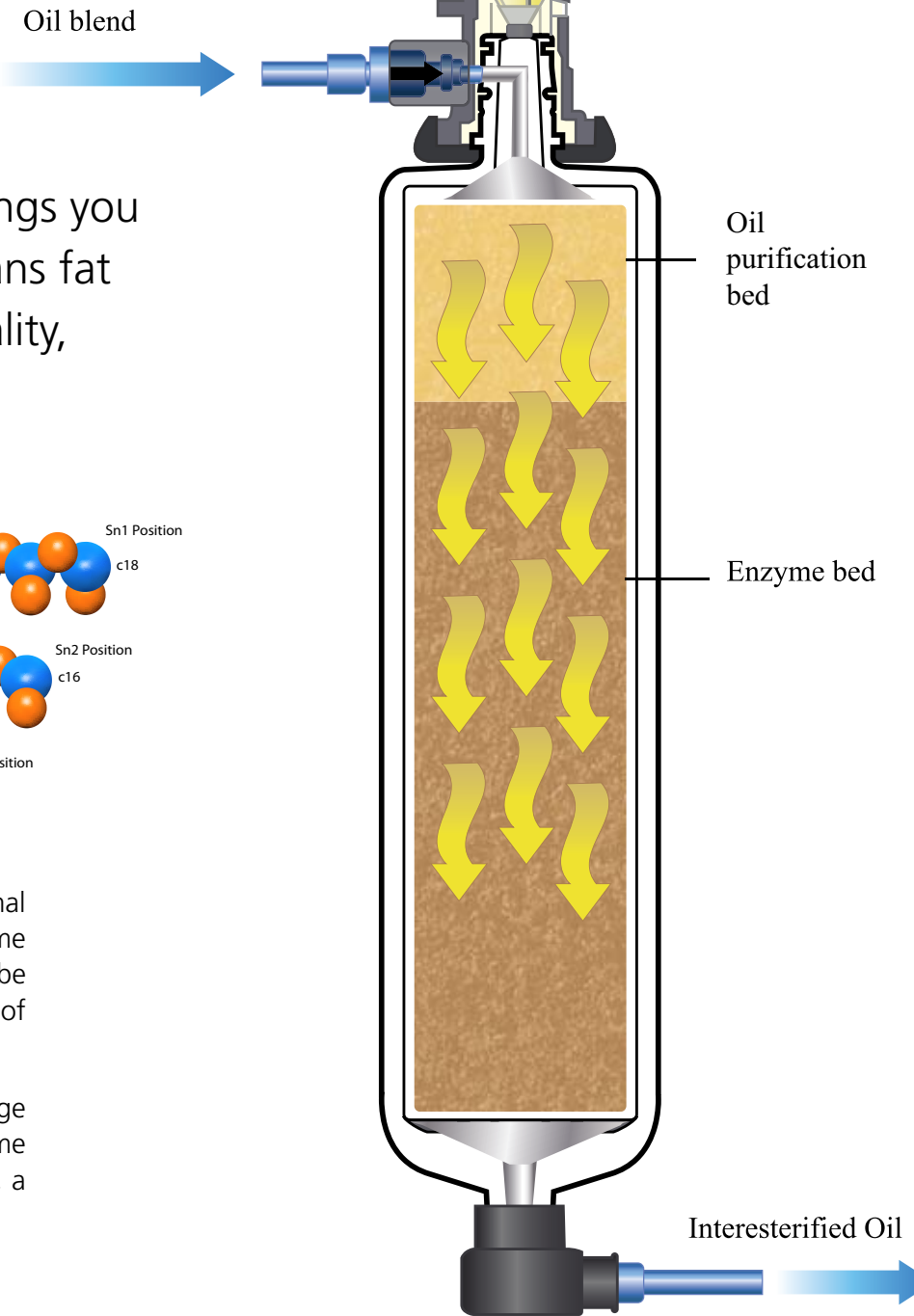
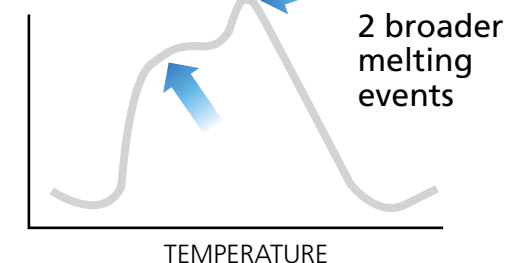
Cookies, Crackers, Biscuits, Dairy Fat Replacers, Pie Crust, Popcorn and Flat Bread/Tortillas



Physical Blending



Interesterification



Features and Benefits

Ability to eliminate trans fat and optimize saturated fat content while delivering a wider plasticity range

Less processing and no harmful by-products create a more sustainable, green process

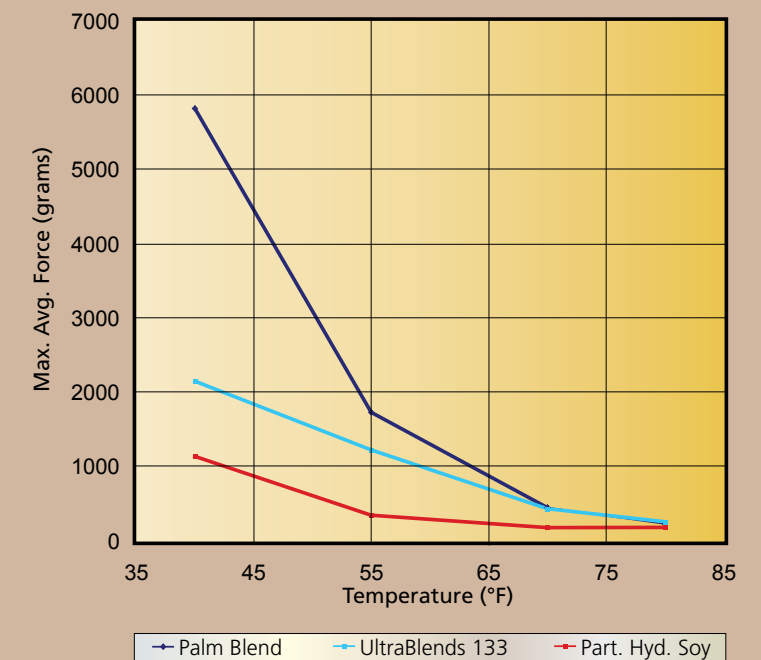
Made with domestically sourced soybean oil offering the opportunity to hedge oil with better risk management

Elimination of trans fat, lowered saturated fat, wide plasticity range and suitable year-round use make UltraBlends a great alternative to traditional hydrogenated shortenings and palm based products

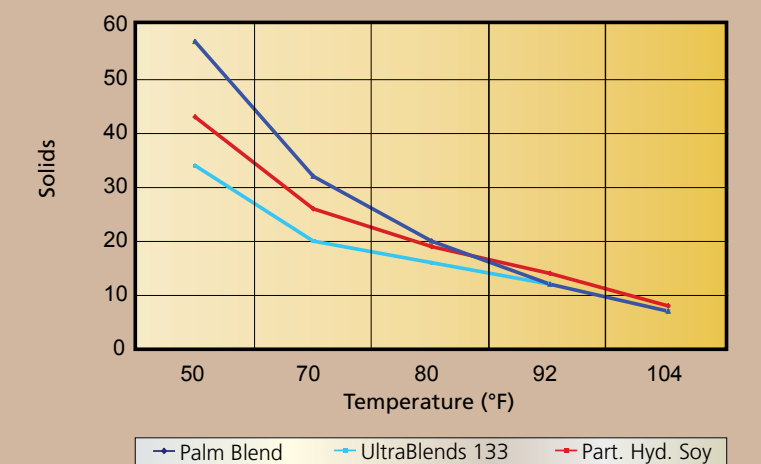
A more consistent SFC Curve creates less variability in firmness of the dough, especially beneficial for machining processes

PLASTICITY RANGE

The impact of temperature on shortening firmness



SOLID FAT CONTENT BY TECHNOLOGY





A premium shortening, designed to perform best when stored and used below 75 °F.

Solid Fat Content	% Range
@10°C	22 - 34
@21.1°C	18 - 27
@26.7°C	10 - 18
@33.3°C	8 - 17
@40°C	6 - 15

Mettler Drop Point (°F) 125 - 133
 Ingredients: Interesterified Soybean Oil and Hydrogenated Soybean Oil.



A premium pie shortening that is designed to perform best when stored and used at 42 – 48 °F.

Solid Fat Content	% Range
@10°C	22 - 34
@21.1°C	18 - 27
@26.7°C	10 - 18
@33.3°C	8 - 17
@40°C	6 - 15

Mettler Drop Point (°F) 125 - 133
 Ingredients: Interesterified Soybean Oil and Hydrogenated Soybean Oil.



A specially formulated plastic shortening. This product is higher in solids than Bunge Ultra EIE 129, thus it is a firmer All Purpose Shortening. It can be labeled "Interesterified Soybean Oil" if removing hydrogenation from the product label is desired.

Solid Fat Content	% Range
@10°C	32 - 38
@21.1°C	23 - 30
@26.7°C	15 - 24
@33.3°C	9 - 16
@40°C	5 - 10

Mettler Drop Point (°F) 115 - 124
 Ingredients: Interesterified Soybean Oil.



St. Louis, Missouri
 (800) 828-0800

www.bungeoils.com
 www.TransFatSolutions.com

Simplified.
 Sustainable.
 Reliable.



Trust the Oil Experts, Trust Bunge