



# Solutions for your chocolate confectionery success

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**Ingredients &  
multi-ingredient blends,  
Europe**



# Cargill, your partner for co-creating growth in chocolate confectionery

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Leveraging our chocolate expertise anchored in consumer and market insights, powered by our passionate team of chocolate engineers with deep ingredient, application and category knowledge. We're here to support you by developing and testing fully integrated solutions that deliver consumer-pleasing chocolate confectionery products.

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## Our secrets to your chocolate confectionery success:



### Insights-driven innovation:

Complement your insights with our research into market trends and consumer needs to develop consumer-pleasing chocolate confectionery



### Broad solutions portfolio:

Leverage our broad Cargill ingredient portfolio and our partnership to deliver fully integrated solutions



### Enhanced expertise:

Tap into reliable, knowledgeable and highly skilled chocolate confectionery experts and state-of-the-art facilities that are close at hand



### Accelerated sustainability:

Advance your sustainability goals by leveraging our sustainability actions and commitments across the supply chain



### Trusted supplier:

Scale, grow and thrive thanks to global supply chains and alternative solutions to help manage your costs

# Our solutions are grounded on your market opportunities:

Indulgence is at the heart of everything that we do. It is our starting point for innovation.

We develop our solutions on four pillars of growth that address today's most important market opportunities, consumer needs, and manufacturing requirements.



Super sensorial



Health



Sustainability &  
Transparency



Efficiency

## Ingredients in this document:

**Chocolate**  →

**Confectionery alternative to chocolate**  →

**Coatings and fillings**  →

**Cocoa powder** →

**Cocoa butter & liquor** →

**Edible oils and fats** →

**Decorations and inclusions**  →

**Sweeteners** →

**Fibers** →

**Texturizers & emulsifiers** →

**Wafer** →



Multi-ingredient blends: a mix of various ingredients, expertly blended for your convenience into intermediate products



# Super sensorial

Chocolate and indulgence go hand in hand. Our ingredients and expertise help create a range of sensorial experiences to elevate any type of chocolate application. Discover exciting flavors that appeal to new consumers. Emphasize a premium and indulgent positioning with a specialty chocolate. Introduce a texture surprise with an oozing filling or a crunchy inclusion. Add to the visual appeal with on-trend decorations. The possibilities are endless with our solutions!



## Solutions for Super sensorial

### Appearance

Product	Function
<b>Chocolate</b>	<ul style="list-style-type: none"> <li>Full solution: Milk, dark and white chocolates tailored to suit the color profile you require</li> <li>Specialty products: Bright White, Caramel Selection: range of caramel white chocolate, ExtraVeganZa vegan chocolate</li> </ul>
<b>Cocoa Powder</b>	<ul style="list-style-type: none"> <li>Explore a wide range of colors from light to dark with the use of cocoa powder</li> <li>Enhance the chocolate color</li> </ul>
<b>Cocoa Butter &amp; Liqueur</b>	<ul style="list-style-type: none"> <li>Leverage a cocoa butter range from yellow to light for white chocolate</li> <li>Enhancing color using cocoa liqueur</li> </ul>
<b>Coatings &amp; Fillings</b>	<ul style="list-style-type: none"> <li>Explore a range of colors from regular brown and white to more colorful options (solids only)</li> <li>Deliver a premium positioning with chocolate claim compounds</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>Helps create desired product color</li> <li>Glossy surface, avoids fat bloom, addition-CremoFLEX®</li> </ul>
<b>Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Provide visual appeal with a wide range of colors, shapes and visuals</li> <li>Printed sheets for custom designs</li> <li>Customized solutions that make your product look unique</li> <li>Sugar, wafer and other decorations also available</li> </ul>
<b>Sweeteners</b>	<ul style="list-style-type: none"> <li>Transparent, not affecting product color and perfect for white chocolate applications</li> </ul>

### Texture

Product	Function
<b>Chocolate, Cocoa Butter &amp; Liqueur</b>	<ul style="list-style-type: none"> <li>Provide a range of possibilities with textures from soft to extra “snap”</li> <li>Cocoa butter range that provides an excellent melting profile and contribute to rheology</li> </ul>
<b>Coatings &amp; Fillings</b>	<ul style="list-style-type: none"> <li>Enhance sensorial functionalities with different textures from soft and oozing to hard and snappy</li> <li>Introducing a new range of cocoa, hazelnut and peanut alternative solutions</li> <li>With and without nuts</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>Create multi-sensory eating experience</li> <li>Achieve soft and creamy filling, excellent texture varieties including rich mouthfeel</li> <li>CremoFLEX® range: it offers Creamy smooth mouthfeel and or snappy crisp texture for coatings and fillings.</li> </ul>
<b>Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Provide a variety of textures with chocolate and compound solutions compared to chocolate</li> <li>Unlock multi-sensorial experience with a range of inclusions that can suit your requirements</li> <li>Sugar, wafer and other decorations also available</li> </ul>
<b>Sweeteners</b>	<ul style="list-style-type: none"> <li>Range of sweeteners allow to adjust viscosity of water-based fillings</li> <li>Different range of granulometry for polyols and dextrose can help adjust mouthfeel and process for all chocolate applications</li> </ul>
<b>Texturizers &amp; Emulsifiers</b>	<ul style="list-style-type: none"> <li>Lecithin allows you to adjust viscosity and yield value of chocolate, reduces cocoa butter use, emulsifies and stabilizes ingredients, and prevents oil separation in fillings and sweet spreads</li> <li>Carrageenan for jellies with chocolate coatings: gives a soft texture to firm and brittle jellies</li> </ul>

### Flavor

Product	Function
<b>Chocolate</b>	<ul style="list-style-type: none"> <li>Explore a variety of flavors within all chocolate types: milk, dark, white, including caramel white chocolates and vegan chocolate</li> <li>Provide a rich chocolate taste differentiate with a specific sensory profile and a claim on pack</li> <li>Provide rich chocolate taste via signature origins and “Belgian chocolate” claim</li> </ul>
<b>Cocoa Powder, Cocoa Butter &amp; Liqueur</b>	<ul style="list-style-type: none"> <li>Provide a range of chocolate flavors from mild beans to intense from different origins</li> <li>Tailored solutions for taste requirements driven by sourcing and processing</li> <li>Enhance the chocolate flavor with cocoa powder</li> </ul>
<b>Coatings &amp; Fillings</b>	<ul style="list-style-type: none"> <li>Flavor base: white, milk, dark and hazelnut</li> <li>Deliver a wide spectrum of indulgent flavors, including additional custom flavors to create unique products</li> <li>Cocoa powder enhances the taste and flavor of coatings by reducing off-taste</li> <li>Enhance sensorial functionalities options for speed of flavor release from steep melting to long lasting</li> </ul>
<b>Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Provide flavor differentiation with available chocolate and compound solutions that elevate your products – we can use any specific chocolate flavored recipe</li> <li>Sugar, wafer and other decorations also available</li> </ul>
<b>Sweeteners</b>	<ul style="list-style-type: none"> <li>Tailor-made sweetness profile: our range of sweeteners allow to modulate the sweetness levels of products from less sweet to very sweet</li> <li>Polyols allow the possibility to increase cooling if desired</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>Deliver optimal flavor release with a cooling affect (CremoFLEX® F) and provides rich taste</li> </ul>





# Health

Just as diverse as your chocolate-loving consumers are, are their diverse expectations when it comes to better-for-you options. Whether your consumers are seeking out calorie-reduced chocolates, low sugar or even looking for protein or fiber fortified options – each provides its challenges when it comes to taste and texture. At Cargill, we can supply multiple solutions to achieve one or more better-for-you propositions – without compromising on indulgence. We can co-create better-for-you options by looking at your complete product formulation to identify the optimal solution.

## Solutions for Health



# Sugar Reduction

Product	Function
<b>Chocolate</b>	<ul style="list-style-type: none"> <li>Reduced sugar recipes for dark and milk chocolate</li> </ul>
<b>Cocoa Powder</b>	<ul style="list-style-type: none"> <li>Provides same flavor intensity, taste and color even with reduced sugar in products</li> </ul>
<b>Coatings &amp; Fillings</b>	<ul style="list-style-type: none"> <li>Reduced sugar fillings &amp; coatings</li> </ul>
<b>Edible Oils &amp; Fats</b> CremoFlex A	<ul style="list-style-type: none"> <li>A broad range of specialty oils and blends that offer that help to keep the taste experience for reduced sugar solutions</li> </ul>
<b>Decorations &amp; Inclusions</b> <i>Available in chocolate and compounds</i>	<ul style="list-style-type: none"> <li>Reduced-sugar chocolate options</li> <li>Sugar decorations: reduced sugar option</li> <li>Sugar and gluten-free azyme (wafer from corn starch)</li> </ul>
<b>Sweeteners &amp; Fibers</b>	<ul style="list-style-type: none"> <li>Full calorie syrups with different ranges of declarable sugars (DP1, DP2)</li> <li>High intensity sweeteners facilitate sweetness adjustment without adding any calories or sugars</li> <li>Cargill™ soluble fiber enables sugar reduction with good digestive tolerance</li> </ul>

# Nutri-Score / Low Calorie

Product	Function
<b>Chocolate, Coatings &amp; Fillings, Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Find low calorie solutions by exploring different combinations of ingredients applicable to the product</li> <li>Reduction of fat or SAFA in compound decorations</li> <li>Aerated chocolate solutions</li> </ul>
<b>Edible Oils &amp; Fats</b> CremoFLEX®	<ul style="list-style-type: none"> <li>Reduce SAFA by replacing milkfats or regular vegetable fats</li> <li>Increase Omega-3</li> <li>Impact of oils on Nutri-Score (sunflower)</li> <li>Enhances the sweetness perception (versus cocoa butter)</li> <li>Improve mouthfeel in lower fat recipes</li> <li>Non-palm CremoFLEX®</li> <li>Label friendly options (non-hydrogenated, low trans fats)</li> <li>Plant-based alternative to milk fat</li> </ul>
<b>Sweeteners &amp; Fibers</b>	<ul style="list-style-type: none"> <li>Low sugar syrups enable sugar reduction &amp; Nutri-Score improvement without calorie reduction.</li> <li>Polyols enable sugar reduction and calorie reduction</li> <li>Cargill™ soluble fiber assists in sugar reduction, calorie reduction and fiber enrichment, enabling Nutri-Score improvements</li> </ul>
<b>Texturizers &amp; Emulsifiers</b>	<ul style="list-style-type: none"> <li>Improve nutrition to chocolate coated jellies with Carrageenan: Low calorie content, rich in fiber and other naturally healthy elements</li> </ul>

# Enrichment

Product	Function
<b>Chocolate, Coatings &amp; Fillings, Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Create high fiber, high protein recipes</li> <li>Provide a wide assortment of nuts for decorations and inclusions</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>Improve mouthfeel in lower fat recipes</li> <li>Increase Omega-3</li> </ul>
<b>Sweeteners &amp; Fibers</b>	<ul style="list-style-type: none"> <li>Cargill™ soluble fiber enables fiber enrichment with limited organoleptic impact and good digestive tolerance</li> </ul>
<b>Texturizers &amp; Emulsifiers</b>	







# Sustainability & Transparency

Your consumers want to feel good about the chocolate they eat. From small family farms to global shipping lanes, Cargill works every day to implement new and more sustainable practices to reduce our impact on the planet and protect people. We strive to deliver more sustainable solutions to our customers across all product lines. Beyond more sustainable sourcing, we offer customers joint programs to support their initiatives to reduce their carbon footprint and inform consumers. In addition, some product lines feature a variety of organic solutions.



## Solutions for Sustainability

### Vegan & Plant-based

Product	Function
<b>Cocoa &amp; Chocolate</b>	<ul style="list-style-type: none"> <li>Sensorially outstanding vegan chocolate range with lighter color profile and vegan claim.</li> <li>ExtraVeganza chocolate: based on sunflower powder or rice syrup</li> <li>Available from “suitable for vegan” to “vegan with no detectable levels of dairy”</li> <li>All cocoa products are naturally plant-based, certification may be obtained if required (also applies to dark chocolate)</li> </ul>
<b>Coatings &amp; Fillings, Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Cocoa-free confectionery</li> <li>Cocoa alternative solutions offers great sensorials, no allergens induced recipes with a vegan and label-friendly claims</li> <li>Introducing a new range of cocoa, hazelnut and peanut alternative solutions</li> <li>Plant-based and vegan designed recipes</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>Rich portfolio of plant-based tailor-made solutions as alternative to animal fat</li> </ul>
<b>Texturizers &amp; Emulsifiers</b>	<ul style="list-style-type: none"> <li>Lecithin: sourced exclusively from plants and is available in soy, sunflower and rapeseed</li> <li>Carrageenan: Nature-derived, simple and familiar plant-based ingredient, based on seaweed</li> </ul>
<b>Sweeteners</b>	<ul style="list-style-type: none"> <li>Range of vegan sweeteners</li> </ul>

## Carbon Footprint Reduction Quality Mark

Product	Function
<b>Cocoa &amp; Chocolate, Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>Empowering farmers to have efficient land-use, and better farming practices under Cargill Cocoa Promise program</li> <li>Segregated Rainforest Alliance, Organic cocoa powders</li> </ul>
<b>Coatings &amp; Fillings</b>	<ul style="list-style-type: none"> <li>Cocoa-free confectionery</li> <li>Introducing a new range of cocoa, hazelnut and peanut alternative solutions</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>More sustainable sourcing &amp; certification available: Rainforest Alliance, RSPO palm</li> <li>More sustainable sourcing and certification available: Rainforest Alliance, RSPO, ISCC</li> <li>Carbon footprint reduction compared to animal fat</li> </ul>
<b>Sweeteners &amp; Fibers</b>	<ul style="list-style-type: none"> <li>CO2 savings possible depending on the reference and sourcing plant</li> </ul>
<b>Texturizers &amp; Emulsifiers</b>	<ul style="list-style-type: none"> <li>Proterra verified: Zaandam plant</li> <li>ISO energy efficiency ISO 50 001: Hamburg plant</li> </ul>
<b>Plant Proteins</b>	<ul style="list-style-type: none"> <li>Promote soil health and reduces carbon emissions compared to other protein sources: pea protein</li> </ul>

Product	Function
<b>Cocoa &amp; Chocolate</b>	<ul style="list-style-type: none"> <li>More sustainable sourcing &amp; certification available: Fairtrade, Rainforest Alliance, Organic, Cargill Cocoa Promise program</li> <li>Label friendly cocoa powder (non-alkalized or low alkalinized) in tempting dark colors</li> <li>Provide claims from standard to premium: single origin, Belgian-made and organic</li> <li>Achieve a chocolate claim on pack with a premium labeling</li> <li>Differentiate with single origin, Belgian claim</li> </ul>
<b>Coatings &amp; Fillings, Compound Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"> <li>More sustainable sourcing &amp; certification available: RSPO palm &amp; non-palm alternatives</li> <li>Non-palm recipes using alternative vegetable fats such as sunflower, rapeseed, coconut, shea or cocoa butter</li> </ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"> <li>More sustainable sourcing &amp; certification available: Rainforest Alliance, RSPO palm</li> <li>Non-palm alternatives</li> </ul>
<b>Sweeteners, Fibers, Texturizers &amp; Emulsifiers</b>	<ul style="list-style-type: none"> <li>Sweeteners: SAI Silver possible for most of our sweetener range depending on reference and plant</li> <li>Lecithin: Non-soy options, available in different quality grades and is SEDEX compliant</li> </ul>



## Solutions for Sustainability



# Label-friendly / No additives / No allergens

Product	Function
<b>Chocolate, Coatings &amp; Fillings, Decorations &amp; Inclusions</b>	<ul style="list-style-type: none"><li>· Label-friendly, no lecithin, short ingredient list options</li><li>· No hazelnut compound labeling</li><li>· Cocoa alternative coatings &amp; fillings that are planet-friendly with a significantly lower carbon, land and water footprint. With great sensorials, no allergens induced recipes, and with vegan and label-friendly claims</li><li>· No-nut decorations and inclusions at Smet &amp; Leman</li><li>· Range of nuts available with “no lecithin / no allergens / no additives” claims</li></ul>
<b>Cocoa Powder, Cocoa Butter &amp; Liquor</b>	<ul style="list-style-type: none"><li>· Kosher and Halal certified</li><li>· With organic certification available (EU, NOP, SUI)</li><li>· Cocoa powder: Label-friendly range (low-alkalized) to create the dark color</li><li>· Cocoa butter: Traditional deodorized, non-deodorized and partially deodorized cocoa butter products</li></ul>
<b>Edible Oils &amp; Fats</b>	<ul style="list-style-type: none"><li>· Kosher, Halal, and organic claims for liquid oils used in fillings</li><li>· Label-friendly options (palm-free and non-hydrogenated)</li></ul>
<b>Sweeteners &amp; Fibers</b>	<ul style="list-style-type: none"><li>· Label-friendly: stevia sweeteners</li><li>· Cargill™ soluble fiber: good consumer perception of soluble fibers (corn or wheat)</li></ul>





# Efficiency

A close-up photograph of a hand holding a large quantity of cocoa beans. The hand is positioned over a pile of more cocoa beans, a mound of cocoa powder, and a stack of Euro banknotes. The background is a blurred pattern of cocoa beans.

With rising costs you need a supplier who can help you (re)formulate your chocolate confectionery products without impacting quality and who can help improve efficiency in your production process. Our global supply chain and price risk programs help protect you from volatility in the ingredients market.

## Solutions for Efficiency

### Lower Ingredient Cost

- Cost competitive solutions & reformulation with the use of the full Cargill portfolio available, relevant to the product or recipe required:
  - Cocoa, chocolate and compounds
  - Edible oils & fats
  - Sweeteners, texturizers & emulsifiers
- Price risk services to avoid product reformulations
- Specialty products
  - Compound as alternative to chocolate
  - Powdered chocolate (or chocolate in powder) with less than 32% cocoa powder – a mixture of cocoa powder and sugars
  - Glucose/fructose syrups are competitive compared to sugar and invert sugar
  - Edible oil blends that help replace dairy fat and offer cost optimization



### Improved Processability

- Deliver required ingredient packaging, size or format for ease of processing or production
- Blended ingredients as possible solutions for simplified processing
- Tailored processing solutions to adapt to customer needs from pure raw ingredients to delivering end-products such as decorations and inclusions
- Optimization of formulation for improved processability (including crystallization speed)
- Support customer in production processability based on deep ingredient and product knowledge from our technical experts

### Shelf-life Improvement

- Technical testing and re/formulation for improved shelf-life across relevant ingredients or solutions:
  - Chocolate and compounds: thickening, blooming stability, fats shelf-life
  - Edible oils & fats: stability and shelf-life at solid or liquid storage conditions. Can be combined with lecithin to improve shelf-life.
- Evaluate the interaction of raw materials to help improve overall product shelf-life
- Lecithin



<https://www.cargill.com/food-bev/emea/cocoa-chocolate/coatings>

## Let's find the sweet spot together!

It's still possible to delight your consumers while protecting your margin with Cargill's tailored coatings solutions. Whether you're looking to reformulate in bakery, ice cream or chocolate confectionery, our experts can help you develop recipes that address the preferences of your specific target group. Making the switch over from traditional chocolate is easy too, with no major investment required on your side. Basically, if your production can handle chocolate, then it can also handle a coating! In short, Cargill's tailored coatings solutions deliver both **cost effectiveness & consumer delight**...with no additional complexity.







# Chocolate

Chocolate is the most essential element to create indulgent chocolate confectionery products that please the senses. Cargill offers a variety of standard and specialty chocolates for sensory excitement and on-trend claims. You can trust the expertise of the Cargill chocolate engineers to develop one just right for your consumers & applications.

**53% of today's consumers are not getting what they want from caramel white chocolate...until now!**

Our chocolate experts have embarked on a sensory adventure in search of the perfect blends for truly premium indulgence. These efforts have resulted in the Caramel Caramel Selection, a range of irresistible ingredients and designs made with uniquely blended caramel sensations to deliver indulgent flavors like never before. These range of consumer preferences appeal to a broad flavor and unlock new clusters that go beyond what is currently available on the market. In short, they're the new gold standard for each consumer group out there.



<https://www.cargill.com/food-beverage/emea/cocoa-chocolate/caramel-selection>

Products	Function
<b>Standard</b> <b>Milk, dark, white</b>	<ul style="list-style-type: none"> <li>Coconut, palm &amp; palm kernel fats or blends to be used for a snappy texture and neutral taste.</li> </ul>
<b>Specialties:</b>	
<b>Single Origin</b>	<ul style="list-style-type: none"> <li>Made from high-quality cocoa beans sourced from just one country</li> <li>Ecuador, Columbia, Caribbean, Dominican Republic, Peru, Papua New Guinea, Madagascar, DR Congo, Ghana and Ivory Coast</li> <li>Cocoa content: minimum 70%</li> </ul>
<b>Caramel Selection</b>	<ul style="list-style-type: none"> <li>White chocolate with caramelized ingredients</li> <li>Label-friendly - flavored with natural caramelized ingredients</li> <li>4 color &amp; flavor profiles – matching selected consumer profiles: Sweet Dream, Honeycomb, Butter-Fusion and Bold caramel</li> </ul>
<b>Organic</b>	<ul style="list-style-type: none"> <li>Organic claim chocolate</li> <li>Sourced from organic origins across the globe to limit local influences on supply stability.</li> <li>Blended from different origins to ensure consistent flavor profiles and continuous supply</li> </ul>
<b>ExtraVeganZa</b>	<ul style="list-style-type: none"> <li>Sensorily outstanding vegan chocolate range with lighter color profile and vegan claim</li> <li>Based on sunflower powder or rice syrup</li> <li>Available from 'suitable for vegan' to 'vegan with no detectable levels of dairy'</li> </ul>
<b>Sustainable solutions</b> <i>Basic certification Europe &amp; Africa origins</i>	<ul style="list-style-type: none"> <li>Rainforest Alliance, Fairtrade or Promise verified</li> <li>Cargill cocoa promise: our advanced solution to make a direct impact in cocoa communities</li> <li>Create additional impact and tailor your actions to match your brand values</li> </ul>
Our chocolate ranges are available in galets, buttons, solid blocks and liquid.	



# Confectionery alternative to chocolate

More than 50% of consumers demand “more sustainable” foods with a “reduced carbon footprint” into their diets. Addressing consumer’s as well as Cargill’s customers’ demands regarding sustainability, scalability, and price volatility, Cargill™ Indulgence Redefined is launching, in partnership with Voyage Foods, a delicious innovative range of more sustainable offerings that provide a great sensorial experience.

**The Cargill™ Indulgence Redefined product range is now starting with cocoa, hazelnut and peanut alternative solutions for bakery, chocolate confectionery, ice-cream and cereals, with more to come!**



## Indulgence Redefined:

Our unique “confectionery alternative to chocolate” is inspired by nature and made from sunflower and grape seeds, offering several benefits.

- **A Planet- Friendly solution** with
  - Up to a 61% reduction in carbon footprint. \* \*\*
  - Up to 90% lower land-use-related impacts. \* \*\*
  - Up to 95% lower water footprint than conventional chocolate. \* \*\*
- **A great sensorial experience;** the taste consumers love, without the cocoa!
- **A vegan product,** label-friendly, and produced with no nut or dairy allergens used in the recipe formulation.



[www.cargill.com/food-beverage/  
confectionery-alternative-to-chocolate](https://www.cargill.com/food-beverage/confectionery-alternative-to-chocolate)

\*Results presented indicate the upper bounds of reductions across the alternative products assessed when compared to conventional chocolate. For conventional chocolate products a representative commercial product with similar manufacturing conditions are determined. This is not intended to represent the totality of the chocolate industry but rather a realistic market average for indicative comparative assertions.

\*\*The underlying LCA study incorporates the European Commission-recommended PEF impact assessment method and is 3rd party panel review for ISO 14040:2006 and ISO 14044:2006 conformance. Ex-ante results are ISO 14044 certified, iterations in supply-chain configurations will be accounted for. Report available at <https://voyagefoods.com/our-impact>





# Coatings & fillings

Re-shaping your recipe to perfection! The Cargill portfolio of coatings & fillings is there to meet all your requirements. We offer a wide range of standard and specialty compounds, as well as functional and cost-effective solutions. Our fillings are available in a wide range of textures and consumer requirements. What makes us truly unique is the effective cross collaboration between our category expertise and our experts on Cocoa & Chocolate, Edible Oils and Starches, Sweeteners & Texturizers.

**Today's chocolate confectionery consumers are seeking out new sensory experiences. After taste, texture is the second most important product characteristic they consider. This is even more valid for Gen Y and Z, who are driving future consumer spend in chocolate confectionery.**

Starting from deep consumer insights, Cargill offers a holistic approach to chocolate confectionery through our full portfolio of ingredient solutions and broad expertise. In this way, we'll partner with you in order to create the ultimate sensory experience starting from a contrasted bite, followed by the perfect flavor release and a great visual appeal.



<https://www.cargill.com/coatings-and-fillings>

Products	Features & Benefits
<b>Standard</b> <i>Dark, milk &amp; white</i> <i>With hazelnut</i> <i>paste</i>	<ul style="list-style-type: none"> <li>Coating: for enrobing, dipping and drizzling</li> <li>Rich, indulgent flavor and mouthfeel</li> <li>Tailored to your texture needs</li> </ul>
<b>Chocolate compounds</b>	<ul style="list-style-type: none"> <li>Compounds that contain a % of chocolate in the recipe</li> <li>Allowing "chocolate" claim on packaging</li> </ul>
<b>Colors &amp; flavors</b>	<ul style="list-style-type: none"> <li>Compounds with (natural) flavorings</li> <li>Compounds with (natural) colors</li> </ul>
<b>Without nuts</b>	<ul style="list-style-type: none"> <li>Segregated line for compound without nuts, separate from a line for products containing hazelnut.</li> </ul>
<b>Vegan / Plant-based</b>	<ul style="list-style-type: none"> <li>Recipes suitable for vegan, based on ingredients used</li> <li>Cocoa, hazelnut and peanut alternative solutions</li> </ul>
<b>Palm-free</b>	<ul style="list-style-type: none"> <li>Compounds without palm, using vegetable fats such as sunflower, rapeseed, coconut, shea or cocoa butter</li> </ul>
<b>Sugar reduced</b>	<ul style="list-style-type: none"> <li>Sugar reduction and Nutri-Score improvement</li> <li>Replace sugars with ingredients from Cargill's Sweeteners &amp; Texturizers such as starches, maltodextrins, spray-dried glucose, fibers, protein and polyols</li> </ul>
<b>Enriched</b>	<ul style="list-style-type: none"> <li>Reach nutritional targets or claim by fortification with fibers, proteins or minerals.</li> <li>Cargill ingredients, including soluble fiber and pea protein</li> </ul>
<b>Confectionery compounds</b>	<ul style="list-style-type: none"> <li>Compounds based on cocoa butter alternative</li> <li>Similar functionalities with lower costs</li> </ul>
<b>Sustainable solutions</b> <i>Basic certification</i> <i>Europe &amp; Africa origins</i>	<ul style="list-style-type: none"> <li>Rainforest Alliance, Fairtrade or Promise verified</li> <li>Cargill cocoa promise: our advanced solution to make a direct impact in cocoa communities</li> <li>Create additional impact and tailor your actions to match your brand values</li> </ul>

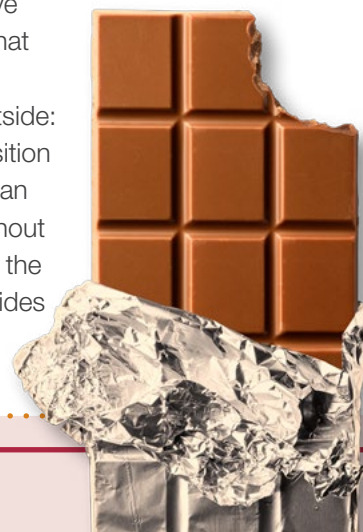


# Cocoa powder

The innovative cocoa powders from Gerken's® guarantee to deliver high quality, consistently vivid color and delicious taste anytime, anywhere. Choose from our extensive range of cocoa powders or work with our cocoa engineers to develop one that is tailored to your chocolate confectionery product. In this we will work together to achieve a mouthwatering chocolate taste, rounded mouthfeel and vivid color that will keep your consumers coming back for more.

## The GS cocoa powder range

The Gerken's® cocoa engineers have developed the Gerken's® GS range. This premium selection of cocoa powders with an attractive red-brown appearance that help you keep a "clean" ingredient list. On the outside: the label-friendly composition means that consumers can choose your product without hesitation. On the inside: the Gerken's® GS range provides an appetizing, intense dark appearance.



## Gerken's® cocoa powders

Products	Features & Benefits
<b>Standard</b> <i>Natural, Alkalized, Different fat options</i>	<ul style="list-style-type: none"> <li>· Broad spectrum of off-the-shelf cocoa powders setting the benchmark for appetizing intensity, comes in different fat level options</li> </ul>
<b>Specialties:</b>	
<b>Sensory</b>	<ul style="list-style-type: none"> <li>· Sensory focus on delicious, recognizable stand out taste</li> </ul>
<b>Organic</b>	<ul style="list-style-type: none"> <li>· Full range of premium organic cocoa powders with consistent quality</li> <li>· Natural to high alkalized</li> <li>· Low fat to high fat</li> </ul>
<b>Origin</b>	<ul style="list-style-type: none"> <li>· Guaranteed provenance and better traceability</li> </ul>
<b>Label-friendly</b>	<ul style="list-style-type: none"> <li>· Premium selection of tempting dark cocoa powders ranging from dark red to dark brown with a cleaner ingredient list</li> <li>· Alkalization below 7%, not requiring label declaration</li> </ul>
<b>High fat</b>	<ul style="list-style-type: none"> <li>· Different fat-levels options of the cocoa powder contribute to the perfect chocolatey taste and rounder mouthfeel</li> </ul>
<b>Custom solutions</b>	<ul style="list-style-type: none"> <li>· Tailored by our Chocolate Engineers for your specific chocolate product</li> <li>· Minimum quantity applies</li> </ul>
<b>Sustainable solutions</b> <i>Basic certification Europe &amp; Africa origins</i>	<ul style="list-style-type: none"> <li>· Rainforest Alliance, Fairtrade or Promise verified –</li> <li>· Segregated Rainforest Alliance cocoa powders</li> <li>· Cargill cocoa promise: our advanced solution to make a direct impact in cocoa communities</li> <li>· Create additional impact and tailor your actions to match your brand values</li> </ul>





# Cocoa butter & liquor

Cocoa butter and cocoa liquor are fundamental elements of chocolate. The right taste, color, mouthfeel, and snap - these are all achieved through working with the right base ingredients!

They can both be used for the creation of your signature chocolates, coatings, fillings, inclusions or decorations.

## Cocoa butter

Products	Features & Benefits
<b>Sunshine</b>	<ul style="list-style-type: none"> <li>Traditional deodorized cocoa butter product.</li> <li>A well-respected all-rounder</li> </ul>
<b>Brilliant</b>	<ul style="list-style-type: none"> <li>A deodorized cocoa butter.</li> <li>Slightly lighter in color compared to Sunshine</li> <li>Neutral taste</li> </ul>
<b>Pearl</b>	<ul style="list-style-type: none"> <li>Refined cocoa butter specialty products</li> <li>Neutral taste</li> <li>Light color – suitable for white and colored applications</li> </ul>
<b>Taste +</b>	<ul style="list-style-type: none"> <li>Non-deodorized or partially deodorized cocoa butter</li> <li>Taste profile range from light to strong cocoa flavor - developed to customer needs.</li> <li>For chocolate recipes that need extra body – or taste sensation.</li> </ul>

## Cocoa liquor

Products	Function
<b>Origin</b>	<ul style="list-style-type: none"> <li>An authentic, unique origin taste, and aromas, from origin countries such as Ghana, Venezuela and Ecuador</li> <li>With organic certification available (EU, NOP, SUI)</li> </ul>
<b>Signature</b>	<ul style="list-style-type: none"> <li>Customized taste, with improved processing characteristics, tailored to growing consumer demands</li> <li>Kosher and Halal certified</li> </ul>
<b>Classic</b>	<ul style="list-style-type: none"> <li>Perfectly suited for all-around applications</li> <li>Complemented by consistent high quality cocoa liquor.</li> <li>Kosher and Halal certified</li> </ul>
<b>Sustainable solutions</b> <i>Basic certification Europe &amp; Africa origins</i>	<ul style="list-style-type: none"> <li>Rainforest Alliance, Fairtrade or Promise verified</li> <li>Cargill cocoa promise: our advanced solution to make a direct impact in cocoa communities</li> <li>Create additional impact and tailor your actions to match your brand values</li> </ul>
Available in liquid unpacked, blocks, drums, chipped, shredded or powdered format	



# Edible oils and fats

That perfect melting profile and creamy mouthfeel delivers on the sensory desires of your consumers in coatings & fillings. Cargill's vegetable oil & fat solutions enable sustainable, reliable and cost-effective compound recipes without compromise on taste or texture. Our comprehensive range of sustainably sourced fats, laurics, specialties and tailor-made blends deliver excellent performance and flavor so you can achieve the ideal mouthfeel, structure and nutritional profile needed for your chocolate confectionery products.



Products	Features & benefits
<b>Lauric</b> <i>Coconut, Palm kernel</i>	<ul style="list-style-type: none"> <li>· Fully hydrogenated available</li> <li>· Ensure high oxidative stability for long shelf life</li> <li>· Bring excellent sensorial properties and flavor release</li> <li>· Bright white color experience / For extra white color experience</li> <li>· More sustainable sourcing &amp; certification: Rainforest Alliance, coconut &amp; RSPO, palm kernel</li> </ul>
<b>Fats</b> <i>Palm-based solutions</i>	<ul style="list-style-type: none"> <li>· Provide excellent texture / structural properties OR Deliver the desired texture and mouthfeel</li> <li>· Ensure high oxidative stability for long shelf life</li> <li>· Cost effective solution</li> <li>· More sustainable sourcing &amp; certification: RSPO</li> </ul>
<b>Tailored blends</b> <i>Palm alternatives based on cocoa butter and/or liquid oils</i>	<ul style="list-style-type: none"> <li>· Provide excellent texture / structural properties - Achieve desired texture and mouthfeel</li> <li>· Reduced SAFA (saturated fatty acids)</li> <li>· More sustainable sourcing &amp; certification: Rainforest Alliance</li> </ul>

## Cremoflex

Our Cremoflex confectionery fats deliver a wide range of textures in fillings, creating distinctive sensory experiences. The range caters to multiple consumer needs; from true indulgence to healthier options. The customized formulation solutions accommodate for different processing and handling requirement.





# Decorations & Inclusions

Consumers are looking for elevated experiences that go beyond taste alone and which engage all the senses. To help you deliver to their wishes for novelty and experimentation, Cargill offers a broad, expertly crafted portfolio of decorations and inclusions to create a distinctive visual and textural allure for your products. In this way we are helping to set the stage for what lies ahead for your consumers: an extraordinary sensorial experience.



Product type/name	Features & Benefits
<b>Chocolate</b>	<ul style="list-style-type: none"> <li>Chocolate decorations enhance the visual, taste and texture of your chocolate confectionery products, adding a richness and indulgence to each bite</li> </ul>
<b>Compound</b>	<ul style="list-style-type: none"> <li>Cost-effective alternative to chocolate with a wide range of textures &amp; formats</li> <li>Chocolate claim possible</li> </ul>
<b>Sugar, sugar paste and marzipan</b>	<ul style="list-style-type: none"> <li>Provide colorful possibilities</li> <li>Provide taste variety and appeal</li> <li>Add a distinct texture to your products</li> <li>Long shelf life</li> <li>Handmade, enabling intricate design</li> <li>Can be tailor made to demand</li> <li>Resistant to high temperatures (warm countries)</li> </ul>
<b>Azyme (wafer from cornstarch)</b>	<ul style="list-style-type: none"> <li>Cost effective</li> <li>Sugar and gluten-free</li> <li>Short ingredients list</li> <li>Long shelf life</li> <li>Resistant to breakage and to heat</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>Provide more healthy consumer perception via nuts, cacao nibs and more</li> <li>Provide taste variety and appeal</li> <li>Provide textural variety: meringue, marshmallows, nuts and more</li> </ul>
<b>Seasonal</b>	<ul style="list-style-type: none"> <li>Very wide range of on-trend seasonal chocolate and sugar decorations. For every occasion.</li> <li>Seasonal creates anticipation and excitement from the limited offer</li> </ul>
<b>Customized solutions</b>	<ul style="list-style-type: none"> <li>With our selection of tailored decorations, we invite you to embark on a journey that not only makes you stand out from the crowd but also showcases the essence of your brand</li> </ul>





# Sweeteners

Cargill offers one of the broadest sweetness portfolios, ranging from full- to no-calorie options, and high intensity sweeteners to offer choice to customer and consumers. Whether you're creating a new, full sugar product or formulating for balanced nutrition, we offer a complete toolbox of solutions for sweet success.

## Product type/ name Features & Benefits

### Low/No-calorie sweeteners (polyols) <sup>1</sup>

0 kcal/g – 2.4 kcal/g, Sugar and calorie reduction, sweetness adjustment

<b>Maltitol</b> Maltidex®	<ul style="list-style-type: none"> <li>Similar sweetness, cooling effect and behavior to sucrose</li> <li>2,4 kcal/g</li> <li>Ideal for no added sugar chocolate and fillings</li> </ul>
<b>Sorbitol</b> C*Sorbitdex®	<ul style="list-style-type: none"> <li>Milder relative sweetness</li> <li>Good humidity and moisture control properties leading to enhanced stability</li> <li>Ideal for water-based fillings</li> <li>Cost-effective</li> <li>2,4 kcal/g</li> </ul>
<b>Isomalt</b> IsoMaltidex®	<ul style="list-style-type: none"> <li>Mild relative sweetness (half of sucrose)</li> <li>Low hygroscopicity</li> <li>2,4 kcal/g</li> </ul>
<b>Erythritol</b> Zerose®	<ul style="list-style-type: none"> <li>Zero calories</li> <li>Sweetness and taste profile close to sugar with a cooling effect</li> <li>Good digestive tolerance</li> <li>Low solubility</li> </ul>

### High intensity sweeteners <sup>1</sup>

0 kcal/g, Enables sugar and calorie reduction/ replacement

#### Steviol glycosides from stevia

Truvia®	<ul style="list-style-type: none"> <li>High Purity Reb A</li> <li>Cost-effective</li> </ul>
ViaTech®	<ul style="list-style-type: none"> <li>Proprietary, synergistic blends of Steviol Glycosides designed for optimal taste (reduced bitterness and licorice off-notes) and sweetness allowing for deeper sugar reduction</li> </ul>

#### Steviol glycosides from fermentation

EverSweet® <sup>2</sup>	<ul style="list-style-type: none"> <li>Advanced fermentation techniques bring to life stevia's sweetest elements – steviol glycosides Reb M and Reb D</li> <li>Sugar reduction up to 8% SEV, with further reduction possible in combination with flavor modulators or other flavor enhancers like erythritol</li> </ul>
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### Full-calorie sweeteners

4 kcal/g, Bulk sweeteners

<b>Glucose syrups</b> C*Sweet®	<ul style="list-style-type: none"> <li>Low to moderate relative sweetness</li> <li>Medium to high viscosity providing body and mouthfeel</li> <li>Helps to adjust sugar recrystallization</li> <li>Prominent in water-based fillings and caramel</li> </ul>
<b>Glucose-fructose syrup</b> C*TruSweet®	<ul style="list-style-type: none"> <li>Moderate to high relative sweetness</li> <li>Cost-effective sugar or invert sugar replacement</li> <li>Prominent in water-based fillings and caramel</li> </ul>
<b>Fructose syrup</b> C*TruSweet® 01795	<ul style="list-style-type: none"> <li>High relative sweetness (circa 1.3 vs sugar)</li> <li>Enhances freshness and boosts fruity flavors</li> </ul>
<b>Dextrose</b> C*Dex®	<ul style="list-style-type: none"> <li>Sweetness close to sugar (circa 0.7 vs sugar)</li> <li>Monohydrate or anhydrous powder, different granulometry available</li> <li>Good solubility</li> <li>Flavor enhancement</li> </ul>

<sup>1</sup> Steviol glycosides and polyols are permitted in most energy or sugars reduced foods under "quantum satis" or under conditions of use. Foods with over 10% polyol content must carry a label "Excessive consumption may cause laxative effects" (EU Reg. 1333/2008 on food additives)

<sup>2</sup> Product of Avansya, a joint venture between Cargill and dsm-firmenich. EverSweet® is already authorized for sale in the UK. It has also received a positive safety opinion from EFSA. Authorization for placing it on the market in the EU is expected at the beginning of 2025.



# Fibers

Many consumers struggle to reach the daily recommended fiber intake levels. That is why Cargill is offering fortification options that can support consumers to close the fiber gap, but that can also offer functional benefits on top.

Product type/name	Features & Benefits
<b>Soluble corn and wheat fiber</b> Cargill™ soluble fiber	<ul style="list-style-type: none"><li>· Enables sugar reduction, fiber enrichment and Nutri-Score improvements thanks to high fiber content and low sugar content</li><li>· Good digestive tolerance</li><li>· Low color and off-taste</li><li>· Made using exclusively licensed micro-reactor technology developed in partnership with Germany's Karlsruhe Institute for Technology</li></ul>







# Texturizers & emulsifiers

At Cargill, we couple our texture and emulsification solutions with our in-depth application and technical expertise, to help address your most challenging formulation needs. Whether you're building body and mouthfeel or designing palate-pleasing textures, we offer a complete toolbox of solutions for indulgent success.

Product type/name	Features & Benefits
<b>Lecithin (soy, sunflower, rapeseed)</b>	
<b>Lecithin</b> Fluid Lecithin	<ul style="list-style-type: none"><li>· Plant-derived, label-friendly emulsifier</li><li>· Emulsifies and stabilizes ingredients</li><li>· Prevents oil separations in fillings</li><li>· Used in chocolate, coatings &amp; fillings</li></ul>
<b>Carrageenan</b> Satiagel® Satiagum® Aubygel®	<ul style="list-style-type: none"><li>· Acts as a thickening and gelling agent</li><li>· Suspends and stabilizes fat, protein and cocoa particles</li><li>· Improves mouthfeel</li><li>· Used in chocolate coatings in confectionery (jellies)</li></ul>

## Your go to partner for fluid rapeseed lecithin

Chocolate confectionery manufacturers are seeking out label-friendly solutions, stable supply, and functionality. That's where fluid rapeseed lecithin comes in as a great addition to our broad portfolio of lecithin solutions.

Cargill's fluid rapeseed lecithin is an easily soluble ingredient derived from regionally sourced European rapeseed, which helps to ensure resilient supply. It delivers comparable functionality to other lecithin botanicals and is allergen-free.





# Wafers

When it comes to the production of countlines, you may include wafers or biscuits in your chocolate confectionery. For these, you have a very different set of technical requirements. Fortunately, our bakery expertise, ingredients and solutions are there to take your chocolate confectionery product to the next level. Below is a look into our portfolio to support your wafers & biscuit needs, but you can also check our full bakery portfolio via:



<https://www.cargill.com/food-beverage/emea/bakery>

Product name(s)	Features & Benefits
<b>Cocoa</b>	<ul style="list-style-type: none"> <li>Chocolate flavored cones &amp; wafers in a range of color and flavor intensities</li> <li>Label-friendly options</li> </ul>
<b>Edible Oils &amp; Fats</b> CremoFlex	<ul style="list-style-type: none"> <li>Blends: Coconut, palm &amp; palm kernel fats or blends to be used for a snappy texture and neutral taste.</li> </ul>
<b>Sweeteners</b> High intensity sweeteners, no/low calorie sweeteners, full calorie bulk sweeteners	<ul style="list-style-type: none"> <li>Sugar reduction</li> <li>Texture improvement</li> <li>Cost optimization</li> </ul>
<b>Texturizers</b> Starch (native/modified)  Dried Glucose & Maltodextrin	<ul style="list-style-type: none"> <li>General purpose thickener</li> <li>Crispness</li> <li>Label-friendly options</li> <li>Provides cost effective bulking</li> <li>Can support low sugar formulation</li> <li>Gives mouthfeel enhancement</li> </ul>
<b>Emulsifiers</b> Lecithin	<ul style="list-style-type: none"> <li>Provides good emulsifying and stabilizing properties</li> <li>Plant-based &amp; label-friendly emulsifier</li> </ul>





Cargill's  
Food Solutions



Co-  
creating

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