

Savory

IOI Loders Croklaan

*Let's create
together*



IOI GROUP



Expert support to create delicious **savory foods**

Manufacturing delicious savory food products is complex. Health trends are changing constantly and product value cycles are getting shorter. In this rapidly evolving market, you need to respond fast to stay ahead. Our experts understand these challenges and work with you to choose the right vegetable oil to deliver high-quality products that satisfy demanding consumers.

There is growing demand for healthier food options, traceable food and clean labels. Food safety and sustainability are important issues for manufacturers and consumers, increasing the need for information about the origins of their ingredients.

With our extensive experience in vegetable oils, we have the expertise to help you meet these requirements. Together we transform your ideas into irresistible savory food products that balance shelf life and cost effectiveness with excellent eating properties.



Oils and fats that help you meet your **business goals**

We are a leading producer of premium quality oils and fats for the food manufacturing industry encompassing:

1 fully integrated, controlled and sustainable supply chain in conjunction with IOI Group to deliver consistent high quality

3 continents from which we operate, enabling us to serve the globe

100+ countries served

100% traceability of directly sourced palm oil

125 years of experience in ingredients, applications and processes

300+ patents awarded for innovations developed by our R&D specialists

500 products used in a wide range of applications, from bakery and confectionery to savory and infant nutrition

1150 colleagues partnering with you to deliver world-class solutions that help you create sustainable and cost-effective offerings



Let's create **together**

We are experts at modifying vegetable oils for a wide range of applications. Whether you manufacture culinary items or fried snacks, our broad portfolio of palm, shea and coconut oil products is tailored to your needs. These oils remain stable during the production process, preserving the desired taste and appearance of your products. As a result, you can achieve high-quality products with a long shelf life. From soups, sauces and stock cubes to fries, crisps, popcorn and cereals.

Taking responsibility

As a company with a background in nutrition, we take food safety seriously. That's why we are keen on Glycidyl- and 3-MCPD esters mitigations. Our unique in-house analysis has been instrumental in engineering new processes by which these substances can be mitigated in our products. We also offer non-hydrogenated oils that offer comparable or better eating properties as their hydrogenated alternatives do.

Going the extra mile

Our impeccable service goes beyond technical expertise. When you partner with us, you can rely on personal contact, clear communication, fast response to your needs and on-time delivery.

Frying

Attribute	Liquidity at 20°C	Oxidative stability	Low foaming	Polymerization resistance	Frying life	Color	Flavor*	Shelf life*	SAFA %	MUFA %	PUFA %	RIP 120°C	SFC 10°C	SFC 20°C	SFC 30°C	SFC 40°C
Palm oil	+	++	++	++	+	++	++	++	50	40	10	17	49	23	9	3
Palm olein IV 55	+	++	+	++	++	+	++	++	45	43	11	16	32	<1		
Durkex® 200	++	++	+	++	++	+	++	++	40	46	14	15	<1			



Soups and sauces

Attribute	Flavor	Mouthfeel	Appearance	Whitening effect	Structuring	Crystallization speed	Soluble	Anti-dusting	SAFA %	MUFA%	PUFA%	RIP 20°C	SFC 20°C	SFC 30°C	SFC 35°C	SFC 40°C	SFC 45°C	SFC 50°C	SFC 55°C
Revel® A	+	+	+	+	++	+	++	+	84	10	2	9	94	89	84	78			
Revel® ST50	++	++	++	+	+	+	++	+	63	26	7	5	74	52		29		12	
Revel® BCPN	++	++	++	+	+	+	++	+	66	25	5	6	79	49			18		
Revel® ST45	+	+	++	+	++	++	++	+	68	22	5	12	75	57	48	40	32	21	7

* = final product

++ = excellent

+ = good



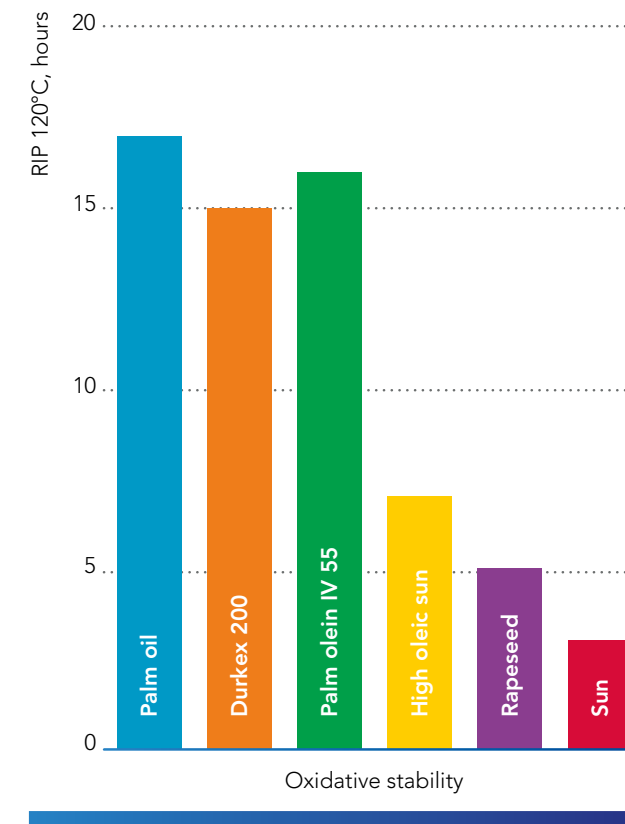
Frying

Frying improves the sensory appeal of food, but during heating several complex interactions take place in the oil which influence the quality of the final product. That's why the choice of frying oil is crucial. We offer stable, high-quality products with high saturated and mono-unsaturated fatty acid content and low poly-unsaturated content to deliver great frying performance at a low price. These products have a high smoke point, resist polymerization and foaming, and do not produce gummy or sticky residues. The result is a fried product with good flavor and texture and a long shelf life.

Products:

- ✓ Palm oil
- ✓ Palm olein IV 55
- ✓ Durkex®
- ✓ Palm stearin blends

Oxidative stability



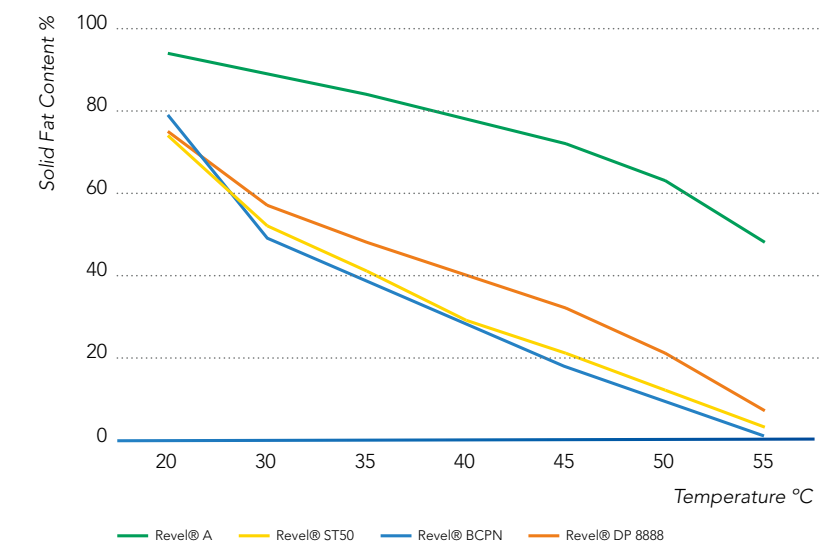


Soups, sauces and bouillon cubes

Fats can play an important role in the production of soups, sauces and bouillon cubes. They are added to enhance taste, flavor, mouthfeel, texture and appearance. Fats act as a flavor carrier and can intensify taste without having their own flavor. The addition of fat improves the mouthfeel resulting in a smooth and creamy final product. It also provides whitening power to the products. Additionally it can assist in preventing clumping or stickiness in dry mixes. Quick crystallization fats are ideal to use in bouillon cubes and can increase production speed.

Our high-temperature melting fats deliver a range of properties that maintain the visual, sensory and structural properties of your product. All non-lauric, non-hydrogenated and trans fat free. Additionally, in powder form these products can also provide anti-dusting properties. Whether you are looking for an excellent flavor carrier, a fast crystallizing product or a lower saturated fat content, we have a product available that suits your needs.

Melting profile of culinary fats



Products:

✓ Revel®



Dressings and mayonnaise

For dressings and mayonnaise, a stable liquid oil is needed to provide mouthfeel and assist with flavor release. Palm oil provides better oxidative stability and keepability compared with the traditionally used polyunsaturated oils.

Alternatively, palm oil can be blended with polyunsaturated oils to improve the stability of the product. Durkex® 300 is the ideal product if you are looking for a stable palm blend with a lower saturated fat content.

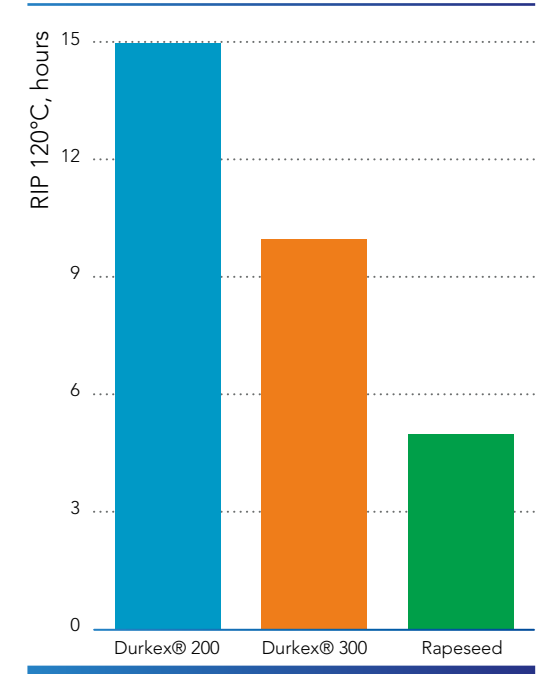
Products:

✓ Durkex®

Attribute	Neutral taste	Mouthfeel	Shelf life*	Oxidative stability	Liquidity at 20°C	RIP 120°C	SAFA %	MUFA %	PUFA %	SFC 10°C
Durkex® 200	++	+	++	++	++	15	40	46	14	<1
Durkex® 300	+	+	+	+	++	10	34	49	17	1

*final product

Oxidative stability





Expert support to create delicious **savory snacks**

Fat can be included in a formulation for many different reasons. Sometimes a fat helps bind the ingredients together and improves the texture and sensory characteristics of the product. Other times it may be needed as a barrier against moisture to prevent the product from breaking or becoming soft and sticky. Alternatively, vegetable fats are used to replace animal fat in vegetarian products. It can also be used as an adhesive for spices, herbs or flavor powders.

We offer a number of high quality specialty fats. Whether you are looking for an oil to fry your snacks, a moisture barrier for your cereal or a binder we have a product which will suit your needs.

Products:

- ✓ Durkex®
- ✓ Biscuitine®
- ✓ Creamelt®
- ✓ Shea

Attribute		Binder	Lubricant	Adhesive	Frying	Animal fat replacer	Coating	Moisture barrier	SAFA %	MUFA %	PUFA %	SFC 10°C	SFC 20°C	SFC 25°C	SFC 30°C	SFC 35°C	SFC 40°C
Durkex® 200	Cereal, Popcorn, Crisps, Sausages		+	+	++		+	+	40	46	14	<1					
Biscuitine® 200	Cereal							+	52	37	11		26		8		4
Biscuitine® 500	Cereal bars	+							57	34	9		45		18	12	6
Creamelt® 900	Cereal bars	+					+		65	32	3		86	74	46		5
Shea	Sausages					+			49	45	6	49	32	18		3	



Building a **transparent and sustainable** supply chain

At IOI Loders Crokiaan, we are dedicated to sustainable practices in everything we do, from our choice of raw materials to how we operate our refineries.

We are convinced that we will serve you best today and tomorrow by sourcing responsibly produced and traceable raw materials from partners we know and trust. By balancing economic, social, and environmental interests, we believe we can create long-term shared value.

With access to IOI Group's consistent, high-quality palm oil supply chain, we have the flexibility to offer a broad range of products.

Committed

Our commitment to sustainable development is part of an ongoing process. That's why we add more and more products to our sustainable portfolio every month. Check out our website www.ioiloders.com for our current portfolio of palm oil products certified by the Roundtable on Sustainable Palm Oil (RSPO) or ask your regional sales representative for more information.

We balance socio-economic and environmental elements to build a sustainable supply chain

We assess palm oil mills ourselves, verifying compliance with our Sustainable Palm Oil Policy

Depending on market uptake, we aim to source 100% SG RSPO-certified palm oil in Europe by 2016

100% traceability for directly sourced palm oil

We believe collaboration with our partners is key to establishing real change

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