



MAKING SNACKS EXTRAORDINARY

Add the Texture Consumers Crave with Tate & Lyle

Crispy crackers. Crunchy coatings. Savoury meat snacks. Tate & Lyle makes it easy to add the texture and the functional performance that appeal to your consumers. Texture claims have helped differentiate the multitude of snack offerings by communicating taste expectations on the package. Claims such as tender, soft, crispy and crunchy are most often associated with popular snack items ranging from meat, fruit and veggie snacks to salty snack nuts as well as other baked/confectionery treats.

Tate & Lyle's food starches are derived from a variety of botanical food sources and are available in native, modified, cook-up, instant and clean-label varieties. Our diverse portfolio provides options from basic thickening to highly-unique functionalities relevant to the snack foods category. Also, if you need assistance, we offer experienced application guidance to help you achieve your goals.

Snacks

Our starches can influence dough texture as well as improve machinability, mouthfeel and appearance of finished products.

FUNCTIONALITY	STARCH		MODIFIED STARCH		BENEFITS
	Cook-Up	Instant	Cook-Up	Instant	
Crispy and crunchy texture		X-PAND'R® SC X-PAND'R® 612		X-PAND'R® STA-SLIM® 150	Release of moisture during baking or frying. Provides moderate to high expansion. <i>e.g. Sheeted crackers</i>
Dough stickiness reduction		CLARIA® MIRA-GEL® X-PAND'R® SC X-PAND'R® 612		X-PAND'R® STA-SLIM® 142	Retention of viscosity under heat and shear. Compatible with cold/low temperature extrusion. <i>e.g. Crisps and crackers</i>
Dough binding and machinability		X-PAND'R® SC X-PAND'R® 612		X-PAND'R® STA-SLIM® 150	Aids with dough formation and improves machinability.
Fat reduction in fried snacks	WAXY #1 TAPIOCA No. 1		MAXIMAIZE® HV MAXI-GEL® MIRA-CLEER®		Helps with sheeting and reduces fat absorption in fried snacks.
Crispy texture in reduced-fat formula		CLARIA® MIRA-GEL® X-PAND'R® SC			Aids in development of desired texture during baking. <i>e.g. Baked snacks</i>
Increase in expansion	Pure Food Powder WAXY #1 TAPIOCA No. 1	CLARIA® MIRA-GEL®		STA-SLIM® 142 STA-SLIM® 150	Provides uniform cell structure and increases expansion. <i>e.g. Extruded snacks</i>
Adhesion of seasonings and particulates			TAPIOCA DEXTRIN	NUHESIVE® MAX	High degree of tackiness, low viscosity solution and quick drying.

Starch source: CORN | TAPIOCA | POTATO

Viscosity Development

The right viscosity in your formulation can make all the difference in snack appeal. Whether you use heat processing or low-temperature processing to create your snack foods, Tate & Lyle has the texturant to help you succeed.

Texture Development

With snack foods, one texture does not fit all, which is why we offer a full range of texturants to enable you to achieve the snack experience your customers crave.

- **Increase expansion** - Create or control the texture and expansion of cereals and extruded snacks with the right starch selection.
- **Crispy, crunchy texture** - Produce the perfect texture for your snack food, from a light and airy crisp to a hard and crunchy snap, and anywhere in between.
- **Crunchy coatings** - Pre-gel starches provide a light and crunchy coating with excellent adhesion to fruits and nuts for adding an extra layer of texture.

Finished Product Stabilisation

With starches, you can create snacks that not only taste good but also keep their texture and structure throughout their shelf life.

Health and Wellness

Meet the growing demand for gluten-free, low-fat, low-sodium and low-sugar snacks that are tastier. Starches can optimise structure and texture in the most challenging formulations.

Process Functionality

From cutting costs to creating healthier foods, starches can help you meet demand and improve your bottom line.

- **Dough binding and machinability** - Starches provide the dough cohesion needed for sheeting, imparting pliability and moderate elasticity to the dough sheet without ripping or tearing, giving you higher yields, increased cost saving and greater peace of mind.
- **Fat reduction** - Starches can help reduce fat absorption in fried snacks or optimise moving from a traditional frying to oven-baked process - without affecting taste or texture.

Clean Label

Enjoy a clean-label claim and great taste, too, with CLARIA® Functional Clean-Label Starches, which label simply as "starch", "corn starch" or "tapioca starch"* yet perform similarly to modified food starches. The CLARIA® line offers a clean, neutral taste and colour comparable to modified food starches and is versatile across a broad range of applications and sophisticated processes.

ABOUT TATE & LYLE

Tate & Lyle is a global provider of ingredients and solutions to the food, beverage and other industries, with operations in over 30 locations worldwide.

tateandlyle.com

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