

portfolio

clean color and taste

make your product a success.



Our Tapioca Starch Portfolio at a glance

Tapioca thickening and gelling starches from Tate & Lyle

BRIOGEL®

Line of starches that deliver gel-like texture that helps with shape retention in baked goods and gels quickly to prevent bake-out in pastry fillings.

BINASOL™

Line of instant thickeners that provides thick, creamy texture in dry mix soups, sauces and similar products.

REZISTA® Starches

Line of thickening starches that deliver high viscosity and desirable process tolerance in soups, sauces and bakery cream fillings, and excellent dough binding properties and stability in noodles and dumplings.

FREEZIST®

Thickens canned and frozen foods, especially puddings, pie fillings, sauces, gravies and soups. This starch provides thick, creamy texture with high degree of clarity and glossiness.

STA-SLIM®

Is a line of both cook-up and instant starches that provides gelling functionality which can mimic textural attributes of fat because it delivers a fat-like texture when cooled or pre-mixed with sugar or oil. It is used in meats, bakery toppings, spreads, frozen desserts, fillings, soups, sauces, dressings, and dairy products intended for immediate consumption, or which are refrigerated for short periods.

TENDERFIL®

Line of starches that thickens UHT sauces used across a range of shelf-life applications, including soups, dressings and dairy.

Our Tapioca starch production in Thailand

Improving agility and supply of tapioca starches

- Since 2020, with the acquisition of CMS (Chaodee Modified Starch) Tate & Lyle has a range of tapioca starches produced in Thailand, which is home to 90% global tapioca starch production.
- Having a local production site in Thailand offers us direct access to local tapioca sourcing and native starch supply, in turn delivering more agility and access to our customers.

Tapioca is the fastest growing starch in new product formulations¹ and provides multiple formulation benefits

- Delivers a cleaner flavor and color than other botanical sources
- Covers a broad range of functionalities across applications
- Has a desirable soft-gel texture
- Delivers desirable mouthfeel, fluidity, and texture attributes across a range of process tolerance levels
- Is a non-grain based starch and Non-GMO

Discover the functionalities of our tapioca starch in applications

Dairy



REZISTA® Max Tapioca Thickening Starches

Benefits in dairy desserts and yogurts

- Delivers suitable viscosity and provides resistance to very high shear conditions and long-shelf-life yogurt
- Excellent water holding capacity providing good shelf stability in chilled and long-shelf life product
- Clean taste and neutral flavor profile
- Suitable color and appearance of yogurt white mass or plain unflavored yogurt





Maize MFS





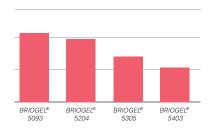


Benefits in processed and cream cheese

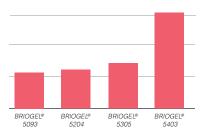
- Provides a broad range of gel firmness, shape retention and hot viscosity
- Suitable for refrigerated or ambient applications across short and long shelf-life
- · Suitable for high shear and high temperature processes
- Results in the soft gel, low strength, and high deformability desirable in processed cheese texture
- ${\boldsymbol{\cdot}}$ Exhibits a neutral color profile comparable to dent starch

BRIOGEL® Gelling Starch

Hot viscosity of processed cheese



Gel firmness of processed cheese











REZISTA® MAX Tapioca Thickening Starches

Benefits in soups and sauces

- Delivers high viscosity while providing resistance to shear under medium to high shear conditions
- Excellent water holding and freeze-thaw stability in soups under frozen, refrigerated or ambient storage conditions
- Yields a smooth, short and creamy texture
- · Clean, neutral flavor with excellent stability in a sauce such as ketchup

Processed meats and canning products



REZISTA® Thickening Starches

Benefits in processed meats, retort, and canned products

- Control texture and cuttability in processed meats
- Thicken and improve water holding in canning products that require gelling
- · Suitable for refrigerated or ambient applications under low to medium shear conditions

Confectionery



BRIOGEL® Gelling Starches

Benefits in soft confectionery, non-gelatine moulded candy, gummy candy, and fruit jelly

- Provides easy depositing and handling in gummy confections processes
- Suitable for high shear & high temperature process; in applications that require high starch content while maintaining low hot viscosity





Noodles and dumplings



REZISTA® Thickening Starches

Benefits in noodles and dumplings

- Provides good dough binding properties
- Generate faster hydration in noodles and additional moisture retention in dumplings

Bakery



REZISTA® Thickening Starches

Benefits in bakery and fillings applications

- Formulate gluten-free bread with an improved mouthfeel while keeping structure integrity and a uniform crumb.
- Moisture management for shelf-life extension in mochi bread, with improved batter viscosity. Creates chewy texture and mouthfeel
- Provide bake stability and improved translucency in bakery fillings

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• Provides texture and moisture control in low fat systems such as cakes and cookies

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Texture Vantage®

Expert Systems

Learn more about our starches and cutting-edge starch selection tools at: tateandlyle.com/texturants

About Tate & Lyle

We are a leading global food and beverage ingredients and solutions supplier, with a 160-year history of ingredient innovation. Through our purpose, *Transforming Lives Through the Science of Food*, we believe that together, we can successfully grow our businesses whilst having a positive impact on society. Partner with us to create healthier, tastier and more sustainable food and beverage solutions for consumers.

