

Outstanding SSD solutions

Delight consumers with ideal texture and mouthfeel with Tate & Lyle

Creamy soups with less fat. Smooth dressings. Thicker sauces. Rich vegan spreads. Whatever sensory experience you're aiming for or functional challenge you need to meet, Tate & Lyle makes it easy to create the mouthfeel that appeals to your consumers. Consumers want fresh, great-tasting foods without the hassle of long preparation times. Starches play a critical role in maintaining the integrity of these foods while addressing convenient preparation methods, shelf stability and freshness in such formats as salad dressing, soups, sauces, dips and ready-to-eat meals.

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 in sauces and dressings relevant to the convenience foods category. Also, if you need assistance, we offer experienced application guidance to help you achieve your goals.



Soups, Sauces, and Dressings

Tate & Lyle offers a wide range of highly functional modified starches, each specifically designed to assist in achieving the desired outcome in soup, sauces and dressings, whether cook-up or cold processed.

| FUNCTIONALITY | TATE & LYLE STARCH SOLUTION | | | | BENEFITS |
|----------------------------|---|---|--|---|---|
| | Cook-Up | | Instant | | |
| Thickening | CLARIA® Elite, Plus and Essential®* CLARIA EVERLAST® 565, 575, 585* REZISTA® Max 5857, 5767 | REZISTA® 375, 386 RESISTAMYL® 34X and 36X** MAXI-GEL® 617 NUSTAR® 140 THIN-N-THIK® 99 | CLARIA® Instant 330, 340, 360* MERIGEL® 341, 342, 347 MIRA-GEL® 463* | MIRA-THIK® 468, 603 TENDER-JEL® 387 | Retains texture under different acid, heat and shear conditions. e.g. Barbeque sauce and other sauces, spoonable salad dressings, retorted and aseptic soups |
| Creamy texture | CLARIA® Elite* CLARIA EVERLAST® 585* | CLARIA® Plus* DRESS'N 400 TENDERFIL® 428 | CLARIA® Instant 360, 363* MIRA-SPERSE® 623 | MIRA-THIK® 468, 603 TENDER-JEL® 387 | Select starches offer delayed hydration and thickening rates helping to avoid emulsion breakage during processing. e.g. Spoonable salad dressings |
| Improved gelling | CLARIA® BLISS 560, 570, 580 MERIZET® 100 | | CLARIA TOP-GEL®* MERIGEL® 100, 341, 342 MIRA-GEL® 463* | MIRA-THIK® 603, 468 SOFT-SET® TENDER-JEL® 387 | Aids to create short, gelled texture. e.g. Mayonnaise type dressings |
| Emulsification | STA-MIST® 302 | | STAMIST® 335, 364, 716 | STA-CAP® 660 | Replaces emulsifiers or eggs. e.g. Vegan Mayonnaise |
| Easy dispersion | | | MERIGEL® 341, 342, 347 | MIRA-SPERSE® 623, 626, 629 MIRA THIK® 603 | Offers ease of dispersion, high viscosity, and no-heat preparation. e.g. Instant or dry mix soups and sauces |
| Surface gloss | FREEZIST® M TENDERFIL® 428 | | MIRA-THIK® 468, 603 MIRA-SPERSE® 623 | | Excellent process tolerance and improved shine on finished product. e.g. Mayonnaise type dressings, pourable dressings |
| Fat/sugar reduction | CREAMIZ® MAXI-GEL® 617 STA-SLIM® 143 STA-SLIM® 151 | | STA-SLIM® 142 STA-SLIM® 150 MIRA-MIST® 662 | | Provides creamy texture and mouthfeel to low fat/sugar formulations. e.g. Cream soups and sauces; reduced sugar sweet sauces |
| Pulp extender | | | PULPIZ® | REDI-TEX® | Cost reduction while maintaining pulp texture. e.g. Tomato based sauces |
| Filling aid | MERIZET® 100, 300* SHUR-FIL® 427, 677 Waxy #1* | | MIRA-CLEER® 787 MERIGEL® 100, 300 | | Suspends particulates and offers low residual viscosity. e.g. Canned vegetable soup, chicken noodle soup |
| Long shelf-life | THIN-N-THIK® 99 RESISTAMYL® 36X** REZISTA® 682 | CLARIA® EVERLAST 565, 567, 585 | | | Offers "thin to thick" viscosity development for improved heat transfer during retort processing, reducing processing time and energy. e.g. Retorted soups and sauces and long shelf-life can packaging products. |

Starch source: CORN (MAIZE) | TAPIOCA | POTATO

* Labels simply as corn, tapioca or potato starch

** 34X & 36X stand for the series of product SKUs under RESISTAMYL® with different process tolerances

Viscosity Development

- **Heat process**—From retort soups and ready meals to UHT (ultra-high-temperature) and HTST (high-temperature-short-time) processing, the right starch is critical to the final product quality.
- **Cold process**—Our wide range of instant, or cold-water swelling, starches enables the convenience of cold processing for a variety of products, including salad dressing, instant soups and microwaveable sauces.

Texture Development

- **Gelling**—Specialized starches can add to dressings and dips a set texture that is stable over the shelf life of the food product.
- **Pulpiness**—Starches can extend pulp, combining peak performance and innovation that stretch value while delivering the texture consumers crave.
- **Mouthfeel improvement**—A wide range of soups, sauces and dressings can be developed with starches to reduce the fat but maintain the creamy, highly indulgent texture.
- **Creamy** — By optimizing the starch base, the perfect blend of thickness and texture can be designed.

Process Functionality

- **Heat and shear tolerance**—Add stability to the heat, acid and shear profile of your food product.
- **Specialized viscosity profiles**—Starch filling aids can suspend vegetables, pasta, meats and other garnishes for optimal filling and packaging while having little residual viscosity in the finished product.
- **Emulsification**—Lipophilic starches provide emulsifying power in creamy dressings and sauces. Because these products can be made without eggs, vegan dressings are now possible.

Finished Product Stabilization

Add an appealing finishing touch. With starches, you can create soups, dressings and dips that taste great and are visually appetizing.

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

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.

The information contained should not be construed as recommending the use of Tate & Lyle's product in violation of any patent, or as warranties (expressed or implied) of non-infringement or its fitness for any particular purpose. Prospective purchasers are advised to conduct their own tests, studies and review of the intellectual property and regulatory space to determine the fitness of Tate & Lyle products for their particular purposes, product claims or specific applications.

***Starch* or *maize starch* in Europe; *starch* or *corn starch* in the US, Canada, China, Australia, New Zealand and Latin America.

