

THE YEAR IN REVIEW

Specialty Products Business

Our Specialty Chemistry business segment comprises Specialty Silica, Prebiotics, Agrochemicals & Seeds

Specialty Silica Business Overview

We have extended our expertise in basic chemistry products to manufacture a range of Specialty Silica products. Our foray into specialty products has been driven by our Pune Innovation Centre's focussed R&D around chemistry-based material solutions.

Our high-performance, differentiated materials are essential inputs for varied industries. Our specialty silica products are finding great demand in the manufacture of high-performance and fuel-efficient green tyres amidst tightening automotive emission standards, labelling requirement of tyres, and the growing Electric Vehicles (EVs) demand. There is also a growing demand for these materials in other application segments like silicone rubbers, battery separators, technical rubber goods and oral care.

Value Chain

Precipitated silica is a part of Soda Ash value chain produced from Sodium Silicate (Soda Ash derivative) as a key raw material, reacted with mineral acid under controlled process condition. Rice husk-based Silica is expected to be a sustainable alternative, predominantly for customers making green tyres for lower carbon footprint.



For our product portfolio and end applications, please visit our website at <https://www.tatachemicals.com/products>

TCL was awarded 'Best Supplier' under innovation category during FY 2021-22 from a leading Tyre manufacturer

Robust portfolio

- Customised HDS products for PCR/TBR (Passenger Car Radial/Truck and bus radial) and various radial tyre applications
- New product developments for battery, defoamers, polymers and personal care industry; Import substitution for silicone rubber grade silica

World-class quality standards

- Reliable and consistent product quality
- REACH quality certification

Well-positioned with right competencies

Unmatched customer value proposition

- Materials expertise for technical and application support
- Quick and assured supply, being the only silica plant in major automotive hub of South India
- Customised products and packaging to address customer demand and better logistics advantages

Sustainability focus

- Products facilitating manufacturing of high-performance and fuel-efficient green tyres
- Rice husk silica development for tyre application

Operational and strategic developments

Stabilising specialty silica operations

Given the new and growing opportunities in this segment, we are making continuous investment towards strengthening our presence in this business.

During FY 2022-23

- We successfully stabilised and improved our specialty silica operations at our Cuddalore plant in Tamil Nadu, reaching 86% operating rates
- We made significant improvements in the infrastructure and processes/systems, contributing to greater efficiency and consistent product quality
- We received HDS product approvals for the tyre industry and started commercial supplies
- We expanded our market reach by strengthening our channel partner and distributor network across the globe, enabling us to commence supplies to overseas customers (both rubber and non-rubber segments)

Way forward

- Co-creating customised solutions for high-performance applications by leveraging proprietary HDS platform technology and customer relationships
- Undertaking innovation to launch new grades, to address a larger base of customers and application segments
- Expanding global footprint by ramping up supply to overseas markets
- Addressing sustainability targets for key customers by introducing rice husk based precipitated silica



The silicone rubber industry needs high purity and consistent quality of silica. This space was occupied mostly by imports. Our Innovation Centre, along with our business development and plant teams, collaborated with leading silicone rubber customers to introduce three specially designed precipitated amorphous silica. These silica products were aimed at addressing the stringent quality requirement of end users in the silicone rubber industry. They have received widespread acceptability in India, and equip customers to plan their production with minimum inventory carrying cost for silica.

Benefits

- The specialised silica products impart not only a bright white colour, but also make processing of silicone rubber compounds easier, on account of their high purity, narrower particle size distribution and consistency
- The Expand BET silica TAVERSIL™ 120F ensures the highest level of filler loading in compounds
- The highest BET material TAVERSIL™ 100B provides translucency in silicone rubber based finished goods, such as roll cover, flexible chocolate moulds, performer for toys etc., among others



Fermentation Prebiotics

At Tata Chemicals, our prebiotics portfolio division, under the brand name Tata NQ, leverages the advances in precision fermentation to offer specialised, nature-inspired and science-backed ingredients and formulations for human and animal nutrition.

Scaling the Health Quotient

Our flagship product - FOSSENCE® is short chain Fructooligosaccharides, commonly referred to as FOS or oligofructose. Manufactured using precision fermentation of sucrose at our state-of-the-art facility in Mambattu, Andhra Pradesh, it finds application in food and beverage formulations, infant nutrition, nutraceuticals and in animal nutrition. Our Mambattu facility is FSSC22000-certified and IGBC gold-rated.

We have a multi-disciplinary team of scientists working on microbiome science (the core science platform) and fermentation technology (the manufacturing platform).

Business Overview

During the year, we continued the growth journey despite challenging business environment. We consolidated our position in existing customer segments and developed newer segments.

Existing Segments

- We added several new key accounts, from whom we are receiving repeat orders – an endorsement of the quality of our products, services and customer delight
- While existing distributors enhanced their reach through better coverage initiatives, new territories were opened with the appointment of additional channel partners

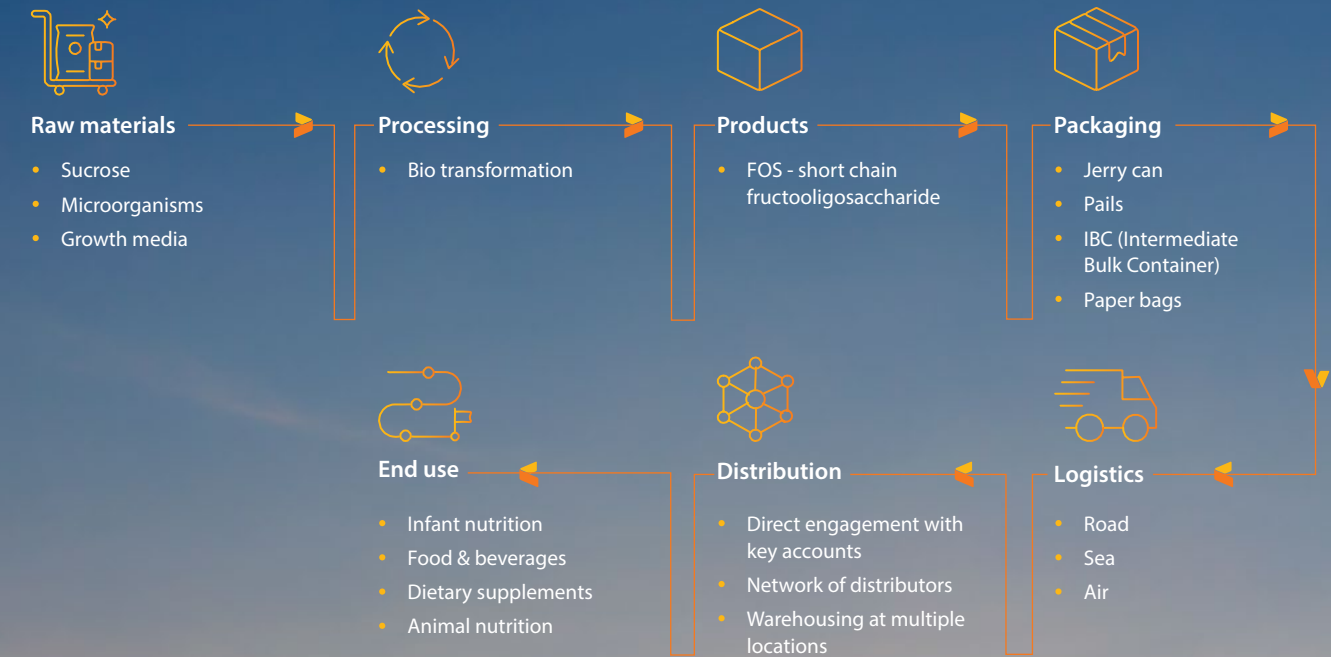
New Segments

- We continued to progress on the development of formulations designed to replace sugar, while maintaining the taste and texture profiles of the final product
- We witnessed opening up of the animal nutrition segment with the commencement of exports in the feed segment in South East Asia

The business showed strong growth on the back of increasing short chain Fructooligosaccharide demand, and focussed application development efforts. The Global industry is estimated to be growing at 7.5-10% CAGR, with higher growth rate in certain markets.



Value Chain



Location: Mambattu Plant

Operational and strategic developments

On the path of accelerated growth

The business focus is shifting from ingredients to solutions approach. We aim to accelerate our efforts in this direction in the coming year.

During FY 2022-23

- We pursued co-creating applications of FOS with our customers and saw significant progress in various product types
- We enhanced our capacities for processing of invert sugar – and have also developed strategic customers in proximity to our plant

- We conducted trials in the poultry and aquaculture segment. Positive results pave the way for increased focus on feed and pet food segment
- Improvements in product quality and streamlining of processes have allowed us to tightly define our product specifications

Way forward

- Strengthening presence in international markets to drive higher volumes
- Closer engagement with customers, identifying their needs and providing solutions to meet the same
- Enhancing focus on cost-control through optimisation of processes to boost efficiencies

Performance Summary (FY 2022-23)

↑ Exceeded target on safety related lead indicators (PSI)

↑ Improved capacity utilisation to over 74%

↓ Increased procurement cost led to higher variable cost



Collaborating with customers to develop novel gummies

We developed gummies with zero-added sugar, through close collaboration with a customer by using FOSENCE® (FOS). Compared to traditional sugar-based gummies, this is a healthier option with no sugar and containing vitamins, minerals, amino acids, herbal extracts and more. The upcoming segment of these novel gummies is helping deliver essential nutrients to consumers, while offering exceptional taste and texture.

Benefits

- These gummies are crystal clear and maintain an exceptional organoleptic profile, and even mask the off-notes possibly coming from herbal extracts
- Blind taste tests have given encouraging results, where consumers have preferred these gummies over the sugar-based gummies
- The development has led to the emergence of one of our key customers, who aims to develop more products now with our ingredient



Mambattu Employees