



## QUALITY PLANT-BASED SOFTGEL TECHNOLOGY IS NOW A REALITY

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SIRIO Pharma empowers  
brands to meet the growing  
demand for sustainable  
plant-based nutraceuticals

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Plant-based has gone mainstream. When taste-offs sizzled between McDonald's McPlant and Burger King's Impossible Whopper it was a definite sign: more people than ever are making plant-based choices, seeking healthier options for themselves and the planet in every purchase from burgers to nutraceuticals. With the new Plantegrity™ plant-based softgel technology, leading full-service contract manufacturer SIRIO Pharma makes it easy for brands to meet consumers' value-driven demands—and serve a broader market.

## MARKET RESEARCH REVEALS RISING PLANT-BASED OPPORTUNITIES

Nearly 50% of consumers in the United States are actively trying to incorporate more plant-based foods in their diets, according to New Hope Network's NEXT Data & Insights—and that's on top of almost one-third of consumers who already try to eat a largely plant-based diet. Plant-based product claims shot up by 62% between 2013 and 2017, Innova Market Insights reports. Plus, as many as one in five U.S. consumers identify as flexitarian, a diet that focuses on plant-based foods, according to Mintel.

“Not only has plant-based gone mainstream, its appeal is broad and diverse,” according to NEXT Data & Insights June 2021 Changing Consumer Survey. “Brands should disabuse themselves of any notions that plant-based products only appeal to affluent Whole Foods shoppers.” NEXT researchers found strong adoption of plant-based products across all income brackets. “Plant-based consumers reflect all educational levels, represent all ages and generational groups and buy from mass market retail stores as well as—not surprisingly—natural grocers,” according to the report. “Plant-based is definitely a serious contender with consumers and not just a niche product.”





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“Consumers are taking active steps to behave in a more sustainable manner, realizing that individual actions can help limit and reverse damage done to the planet. For such consumers, SIRIO Pharma developed the Plantegrity™ softgel technology,” says Yuxin Tu, a researcher with SIRIO Europe, when interviewed by Vitafoods Insights. While most softgels contain fish, bovine or pork gelatin, Plantegrity™ softgels are 100% plant-based.



**Plantegrity™**  
PLANT-BASED  
SOFTGEL TECHNOLOGY

## BIGGER PICTURE OF THE FUTURE

“Plantegrity™” combines the words “plant” and “integrity.” SIRIO developed this technology for mission-driven brands seeking sustainably sourced plant-based solutions. “We named our technology Plantegrity™ because it speaks to SIRIO’s uncompromising commitment to environmentally sustainable and responsible business practices,” says Karla Acevedo, SIRIO Pharma Marketing Manager. Plantegrity’s tagline is “plant-based softgel technology with a purpose.” That purpose is a more sustainable future.

Plantegrity™ works toward this future in two ways. They partner with brands to meet the growing consumer demand for plant-based products. And, they do so in a sustainable way. The star ingredient of these new softgels is gellan gum. It is made through a natural fermentation process that has a lower environmental impact than rival products. It is a more sustainable and label-friendly alternative to ingredients like carrageenan.

SIRIO maintains a constant focus on reducing waste emissions and using natural ingredients. Its teams continuously seek more efficiency in production. The company regularly analyzes its practices and facilities to ensure that it is doing its part to protect the planet. SIRIO sources sustainable ingredients from suppliers with internationally recognized certifications such as the World Sustainability Organization and the Marine Stewardship Council. “Making products that are environmentally friendly is a strong priority,” noted Acevedo.



Contract development and manufacturing organizations (CDMOs) that can partner with brands to satisfy plant-based requirements across all services, from R&D and formulations to natural and clean plant-based manufacturing ingredients, are rare. It is even harder to find a CDMO that can also emphasize sustainability—a key metric for this type of consumer—throughout the supply chain. SIRIO Pharma is deeply committed to delivering on all of these fronts.

## PIONEERING PLANT-BASED SOFTGEL INNOVATION

Headquartered in Shantou, China, the 30-year-old company has more than 2,400 employees worldwide. SIRIO Pharma operates four manufacturing facilities in Asia and Europe with smart factory automation technologies including robotics and artificial intelligence. Services range from market insights to large-scale manufacturing. The company has a 20,000 sq. ft. independent research lab fully equipped to conduct formulation, process and sensory studies and research into analytical methods and stability—and the complete infrastructure to conduct pilot batches for all dosage forms. Three decades of global success has honed its capacity for managing supply chains from seed to shelf. And, SIRIO's quality control systems meet or exceed good manufacturing practices.

Pioneering plant-based possibilities for brands, the company has invested deeply in creating one of the most robust portfolios of plant-based delivery systems available today, including softgels, gummies, hard-shell capsules, tablets, powders and functional beverages. In 2019, SIRIO launched a global collaboration among its 140-plus scientists and industry experts across Asia, Europe and North America. This transcontinental brain trust proactively develops solutions around emerging supplements trends so that brands can respond quickly without compromising on quality. A key focus has been developing products with cleaner labels. “The industry demands products that are more natural and additive free, with consumer-friendly labeling and increased transparency,” says Rui Yang, CSO & EVP, SIRIO Pharma. Plantegrity™, with only four simple ingredients, is one of the results of their work. The shell contains only gellan gum—a naturally derived polysaccharide, modified starch, glycerol and purified water.



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SIRIO has innovated vegetarian softgels for more than 15 years. Its patented VeggieSoft® softgel technology is 100% plant-based. The company was one of the first CDMOs to launch softgels made out of carrageenan derived from algae. That ingredient was used in the first generation of plant-based softgels. Then, SIRIO scientists dug in to develop the new, proprietary gellan gum technology used in the new Plantegrity™ softgels. Resources required to produce gellan gum are abundant and sustainable.

## PLANT-BASED IS JUST THE BEGINNING OF BENEFITS

Beyond the benefit of being plant-based and more sustainable than other delivery formats, Plantegrity™ softgels provide improved heat and humidity resistance. The high content of polysaccharides in the shell prevents cross-linking with other ingredients. Its robust oxygen barrier ensures the freshness of the nutrients. “Gellan gum

produces a clear gel that isn’t sensitive to heat,” says Yuxin Tu. “Functional ingredients in the Plantegrity™ softgel are effectively protected from oxidation and degradation.”

The gellan gum softgel can encapsulate both single ingredient and more complex formulas - from pure oil products (e.g. EPO, CLA, Linseed Oil, Fish Oil, DHA Algal Oil, Vitamin E, Phospholipids, Phosphatidylserine, Vitamin D) to suspensions (e.g. Calcium + Vitamin D). Additionally, there is also the flexibility to have fill weights from just 0.15 grams through to 1.3 grams. The easy-to-swallow softgels can be made in oval and oblong shapes. Consumer benefits include plant-based, non-GMO, gluten-free and sugar-free.

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- sugar-free

Plantegrity™ is manufactured in compliance with c-GMP, FDA, IFS, BRC and TGA guidelines and are compliant with the local regulatory requirements of Europe, the United States and China.

For mission-driven brands seeking sustainably sourced, plant-based softgels, SIRIO Pharma’s new Plantegrity™ technology and the company’s expansive capabilities and experience can deliver an easy solution.

## TRUE PARTNERSHIP FOR QUALITY AND TRANSPARENCY

SIRIO's three decades of contract manufacturing success is anchored in the way the company partners with brands to help them reach their objective. Over 90% of SIRIO customers continually rate services and delivery as “excellent” during client audits. The company uses an integrated, advanced order management system covering the entire manufacturing process, from raw material sourcing, production and warehouse storage to product delivery. This cutting-edge system guarantees traceability, transparency and 99% on-time delivery. SIRIO offers just-in-time global delivery and door-to-door service in the United States, China and Europe.

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