Capsule / Encapsulation Technologies



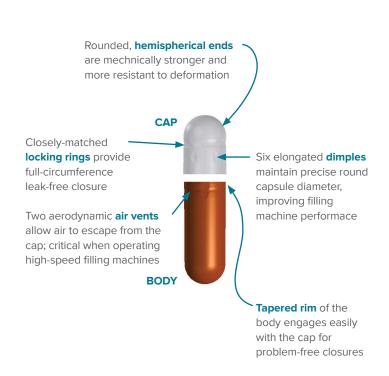


Established Leadership

Capsugel is the global leader in two-piece capsules and encapsulation technology. For more than 100 years, biopharmaceutical companies have relied on the quality, consistency and functional innovations Capsugel has delivered. Today, Capsugel produces more than 200 billion capsules annually for approximately 4,000 customers in over 100 countries. Security of supply is assured through a manufacturing network of ten production facilities worldwide.

Coni-Snap® Sigma Series Capsules – Proven Quality

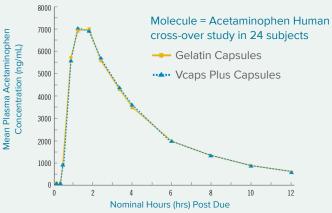
Coni-Snap hard gelatin capsules (HGCs) have been a product of choice for pharmaceuticals and health care companies due to their reliable, outstanding performance worldwide since their unique locking closure was introduced. They are the most widely used capsule in the world and key to their success is the fact that they were designed and engineered for optimized performance. Technology advancements support an iterative quality improvement process resulting in increasingly tighter specifications. All pharmaceutical capsules are now Sigma Series – the designation we give to capsules that have achieved their Critical to Quality Attributes which results in unsurpassed performance and the highest quality levels in the industry.



Vcaps® Plus Sigma Series Capsules: The new standard in HPMC capsules

Vcaps Plus is the new standard in specialty polymer capsules standard providing immediate release in-vivo performance bioequivalent to gelatin, and superior capsule disintegration without the risk of cross-linking. Made through a newly developed thermo-gelation process, Vcaps Plus capsules eliminate the need for gelling systems that can react to the pH or ionic strength of dissolution media. An in-vivo study demonstrates that Vcaps Plus capsules are equivalent to gelatin capsules in terms of human pharmacokinetics profile. By reducing variability, Vcaps Plus capsules are becoming a powerful new tool to reduce timelines in drug product development.

Proven Bioequivalence to Gelatin



Mean in-vivo acetaminophen plasma concentration profiles over 12 hours.

Application Engineered Capsules



Vcaps® Enteric Capsules

Enteric protection and/ or delayed release option without the complexity of coatings.



DRcaps[™] Capsules

Designed to protect acid-sensitive ingredients—originally for the nutritional market. A gamma scintigraphy study showed an average of 52 minutes to first opening.



Dry Powder Inhalation Capsules

Custom inner surface properties, low moisture levels and strict microbial limits all designed to optimize inhalant performance. Available in gelatin and Vcaps / Vcaps Plus.



Press-Fit® and Xpress-Fit® Gelcaps

Unique enrobing solution for transforming a tablet into an easy-to-swallow capsule.



Coni-Snap® Sprinkle Capsules

Designed to be easily opened by patients and caregivers, these capsules are ideal for pediatric and geriatric populations. Available in gelatin and Vcaps Plus.

Specialized Capsules for Clinical Studies and Research & Development



DBcaps® Capsules

A unique locking mechanism provides a costeffective patient solution for double-blind clinical trials in HPMC or gelatin.



Coni-Snap® All Color Capsules

Provides your product with fast-track flexibility through capsules that have 18 built-in color options.



PCcaps® Capsules

Very small capsules designed specifically for oral delivery in pre-clinical studies.

Encapsulated Products



Liquid Filled Hard Capsules (LFHC)

Liquid and semi-solid filled and sealed capsules available in gelatin, non-GMO Project verified vegetarian, and acid-resistant vegetarian polymers.

solutions@lonza.com Capsugel.com US: 800-845-6973 Europe: +33 3 89 20 57 25



Soft Gelatin Capsules

Softgel option for semi-solid and liquid applications with specialized capabilities in low dose, hormones and other challenging applications.



Capsule-in-Capsule

Innovative capsule-in-capsule technology utilizes LFHC for an innovative approach for combination products and multi-phase release.



Pharma & Biotech

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