

Mannogem® Mannitol

Improved Formulations, Better Tablets

www.spipharma.com





Mannogem XL Technology

Mannogem XL is an innovative way to create mannitol for direct compression. The technology is designed to improve the formulation experience as well as to enhance formulation performance. It creates multifunctional, compendial grades of DC spray dried mannitol that provides superior binding and quick disintegration, resulting in superior tabletability.

XL provides greater manufacturing consistencies through its performance and its tight particle size range. Using XL, it is possible to increase patient compliance through tablet size reduction and faster disintegration times.

Products created with Mannogem XL technology retain the positive qualities of compendial mannitol while boasting enhancements over standard competitive mannitol:

25% Higher Tablet Hardness

38% Quicker Disintegration per Tablet

50% Higher Drug Loading Capability

200% Friability Improvement at Low Compression Force

Spray-Dried Mannogem

The proprietary spray dry process used to manufacture Mannogem yields a porous material with lower disintegration times, a narrow particle size distribution, enhanced flow, and compression properties. It is due to these properties that Mannogem is excellent in ODT formulations.

It produces tablets with higher hardness than other excipients at comparable compression forces, and its higher surface area allows Mannogem to work well as a base for ordered mixing with micronized APIs and low dose formulations.

SPI Pharma has innovated spray dried mannitol to provide even higher compactability. Mannogem XL technology creates a mannitol designed to improve the formulation experience and enhance formulation performance. The result is a multifunctional, compendial grades that provides superior binding and quick disintegration.

Mannogem Granular Grades

Granular Mannogem Grades are manufactured through a wet granulation process and have a larger particle size than our Mannogem spray dried material. They exhibit excellent flow, disintegration and compression properties. These products are ideal for formulating tablets with taste masked APIs, which often have a larger particle size due to the taste making process.

Mannogem Granular has a larger particle size that has shown to contribute to a softer texture for chewable tablets. The larger particle size allows it to match specific particle size and density constraints to minimize segregation during transport and manufacturing.

Mannogem 2080 has a smaller average particle size and a tighter overall particle size range. This lower particle size produces higher surface area relative to Mannogem Granular, making it an effective API carrier system.

Mannogem Powder

Mannogem Mannitol Powder is an excellent excipient for use in wet granulation and lyophilization. It dries rapidly, resulting in shorter processing time and increased productivity.

Mannitol is also a good excipient for hot melt extrusion applications. It melts without decomposition at a temperature of approximately 165° C. Its rapid recrystallization upon cooling make it an attractive carrier to improve solubility of poorly soluble APIs.

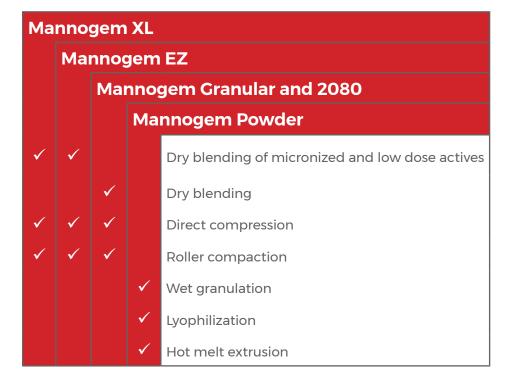


Application Guide for Operations

Mannogem Mannitol allows for higher production rates, reduced sensitivity to lubricants, low friability, and high binding capacity. Your team will want to work with Mannogem because it makes your operation run more efficiently.

Reference the chart to the right/below to find your process of choice. There, you will be able to see which grade of Mannogem best suits your needs.

Once you have determined the grade that works for you, contact us for a sample. Our technical team is available to answer questions and discuss best practices.



Use-Based Formulation Guide

Development of dose forms that are age-appropriate and acceptable to patients is a clear trend with regulators. The excellent organoleptics of Mannogem, together with its high compatibility and improved tabletability of our XL Grade over standard mannitol, mean that it can be used by formulators in projects to cover a wide range of dose form concepts and dosage strengths.

The chart below illustrates dosage form options and which grade of Mannogem Mannitol works best for the desired product.

Our regionally-based technical experts are available to come and work with your team to optimize the formulation and delivery method of your choice. Contact us to request a sample and get started.





An ABF Ingredients Company



Excipients for Swallow Tablets



Effervescent Tablets



Antacid & Laxative Ingredients



Taste Masked Actives



Vaccine Adjuvants



Chewable Tablets
& Lozenges



ODTs/ODPs



Soft Gel Capsules



Nutraceutical Applications

Improve the patient experience and benefit from efficient manufacturing operations by formulating with Mannogem Mannitol.



salesinfo@spipharma.com



www.spipharma.com



SPI Pharma



@spipharma_real



SPI Pharma



@spipharma













All information and statements given in this brochure are believed to be accurate at the time of publication. However, neither SPI Pharma nor any of their affiliates make any representations or warranty with respect thereto, including, but not limit to, any results obtained in the processing of the products by customers or any third party. All information and statements are intended for persons having the required skill and know-how and do not relieve the customer or user from verifying the suitability of information and statements given for a specific purpose prior to use of products. It is entirely the obligation of the costumer or user to comply with applicable laws and regulations, and also with all patent or other intellectual property rights of third parties.

SPI PHARMA EXPRESSLY DISCLAIMS ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND. WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, CURRENCY, COMPLETENESS AND/OR THE MERCHANTABILTY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY INFORMATION CONTAINED IN THIS BROCHURE AND/OR ANY PRODUCT DESCRIBED OR PROMOTED IN THIS BROCHURE, INCLUDING WARRANTIES WITH RESPECT TO INFRINGEMENT OF ANY PATENT, COPYRIGHT, OR OTHER RIGHTS OF A THIRD PARTY. We reserve the right to change product specification and not specified properties of the products without prior notice.