

Azelis Pharma & Health



Case Study: Simethicone used in antifatulence tablet forms with increased dosage



Anti-gas tablets of higher concentration (200mg) have only been available commercially to the Brazilian market, due to its manufacturing complexities.

At Azelis, with our expertise and our breadth of functional ingredient we set to help our customers change that.

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Technical Support
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**Innovation
through
formulation**

Quick View

Challenges

- Create anti-gas formulas in tablet form
- Develop more stable formulas with fewer excipients
- Increase dosage without compromising hardness

Benefits

- Lower weight tablet
- Higher concentration
- Lower cost through material and production
- Reduced process time

Objectives

Address the need for higher concentration simethicone tablets for the North American Market, without affecting the hardness or friability of tablets. Utilize excipient technologies to improve the manufacturing process and overcome formulating hurdles known in the marketplace.

Solutions

Anchor liquid simethicone at 100% concentration, through wet granulation in high shear for homogenous dispersion. The drying stage is eliminated and instead sieved through a No. 30 mesh to improve the uniformity.

To reduce compression force and improve hardness, direct compression-grade Isomaltose is added, Organoleptics such as sweetness and pleasant chew come from the isomaltose. Crospovidone acts as a disintegrant, and magnesium stearate as a lubricant counteracts the added granulation. Flavors and colorants as well.

Benefits

Concentration vs Weight

Very high dose of simethicone with a reduced final weight of the benchmark tablet from 950 mg to 600 mg.

Reduction

Wet granulation process skips the drying stage, directly to sieving and mixing, Reducing processing & manufacturing costs

Improved Rheology

Making compacting possible for silicone-containing formulas without compromising flow & density.