

## Movadex™ M6

### REDEFINE YOUR BARISTA ARTISTRY

Coffee, renowned for its distinctive aroma, pleasant taste, energizing effects, and proven health benefits, remains the world's most consumed beverage. Recently, specialty coffee variants like cappuccinos (featuring milk foam) and latte macchiatos (with layered foam and steamed milk) have gained mainstream popularity. Industry reports project the coffee market to reach \$166.39 billion by 2029, growing at a 4.72% CAGR (2024-2029).

Conventional chemical whipping agents face critical limitations: poor foam stability and inconsistent texture due to inadequate CO<sub>2</sub> carrier acidification or uneven powder dispersion. Thus, developing efficient processing methods to simultaneously enhance flavor, foaming capacity, and stability holds significant commercial potential.

#### CREATING PREMIUM MILK FOAM FACES THREE KEY CHALLENGES

- Achieving a fine, uniform texture
- Ensuring sufficient volume
- Maintaining long-lasting stability

#### MOVATYPE'S SOLUTION

The  $\alpha$ -cyclodextrin (Movadex™ M6), produced from starch, significantly enhances milk foaming performance due to its unique properties. This cyclic oligosaccharide features:

- A hydrophilic outer surface
- A hydrophobic inner cavity



#### MULTI-MECHANISM QUALITY ENHANCEMENT

The hydrophobic cavity binds with lipids in barista-grade milk, forming particulate complexes that deliver:

- ✔ Co-emulsification & foam stabilization
- ✔ Hydrophobic inclusion for fat reduction
- ✔ "Molecular glue" nanostructuring
- ✔ Texture/sensory optimization
- ✔ Suppress phase separation

#### VALIDATED PERFORMANCE

Movadex™ M6 constructs uniform and collapse-resistant foam structures that maintain homogeneous phase stability over time, significantly extending shelf stability. This optimally aligns with specialty coffee's demand for "fat reduction without texture compromise".

The addition of  $\alpha$ -cyclodextrin not only provides beneficial protection for volatile compounds contributing to coffee flavor, but also forms complexes with migrating bitter compounds such as monocaffeoylquinic acid and dicaffeoylquinic acid. By leveraging cyclodextrin's complexation with other compounds to enhance coffee flavor, it effectively reduces bitter and burnt tastes while simultaneously enhancing aromatic profiles, thereby achieving optimized sensory characteristics.