Case Study

MULTIBASE™ for Caps and Closures

MULTIBASE™ additives overcome the drawbacks of traditional organic slip additives in beverage bottle cap applications by reducing friction and maintaining performance over time and temperature.

Challenges

- New standards in production speeds are prompting cap and closure manufacturers to seek new ways to optimize production efficiency, control costs, and simplify supply chain management to meet tighter delivery schedules and save energy costs.
- Manufacturers need stable, long-lasting slip additives to guarantee easy cap removal and replacement, maintain quality in time to reach the consumer, and to avoid any impact on flavor of the container's contents.
- Traditional organic slip additives rapidly migrate, making it difficult to maintain uniform and rapid torque between bottle and cap as well as increasing the risk of contamination.
- Traditional organic slip additives require periods of storage and conditioning, slowing down production times and increasing energy use.

Solutions

- **Long-lasting stability:** MULTIBASE™ permanent slip additives provide a robust solution for PE beverage bottle caps immediately after injection, controlling cap torque < 1N.m, ensuring consistent performance over time, and eliminating the need for climate conditioning.
- **Efficient processing:** MULTIBASE™ helps retain a consistently low Coefficient of Friction (COF) over time and temperature, enabling uninterrupted throughput and productivity.
- **Maintained quality:** No slip migration helps ensure that MULTIBASE™ additives do not impact the flavor of package contents.
- **Controlled costs:** Lower loadings reduce the required amount of material.
- **Sustainability:** MULTIBASE™ additives help enable monomaterial designs that support recyclability while reducing energy consumption due to elimination of secondary operations like storage and conditioning.

There are multiple MULTIBASE™ solutions to meet your needs, each requiring only 2% loading for the batch.

Base resin type	MULTIBASE™ Solution
PE based	MB50-002, MB25 235, AMB12 235
PET based	MB50-012

Learn more about MULTIBASE™ Solutions **MB25 235** and **AMB12 235**.

MB25 235

AMB12 235

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