Stable, long-lasting slip additives are critical for reducing stress on low-density polyethylene (LDPE) film used in high-volume, high-speed form-fill-seal (FFS) packaging operations. Lowering coefficient of friction (COF) on film surfaces can boost productivity and ensure consistent film quality and uninterrupted throughput. Although organic slip additives have been the traditional choice for this purpose, they have significant drawbacks.

MULTIBASE™ AMB-12235 Masterbatch, part of DuPont’s new solutions for polymer modification, combines an anti-block agent with a compatible slip additive to help deliver improved film processing and consistent quality. This innovative Masterbatch can help simplify production, inventory management and logistics vs. using individual additives. Its formulation also ensures compatibility between the anti-block and the slip additives, and the best ratio of active ingredients. For additional simplification, this product can replace plastic processing additives typically used with PE film.

The slip additive in MULTIBASE™ AMB-12235 Masterbatch remains stable over time and under high temperature conditions. Unlike organic slip additives, it helps prevent migration to the film’s surface. Non-migration mitigates impacts on downstream operations like printing. The anti-block agent in the Masterbatch minimizes touchpoints, which enables easier unrolling and helps avoid tearing that can occur when trying to separate adhered film layers.

**Features**
- Low dynamic and static coefficient of friction (COF) – approximately 50% when added at 6wt%
- Stable COF after heat aging for two months at 45°C
- Synergistic relationship between slip and anti-block agents
- Retention of PE mechanical properties (tensile elongation/strain and tear strength)
- Non-migration between film layers and intra layer
- Effective performance at low loadings (4-6 wt%)
- Limited, to no increase in haze that could affect film clarity
- Food contact approval in the United States, Europe and China
- Specifically developed for very tacky PE resin such as plastomers

**Benefits**
- Streamlines PE film production, logistics and inventory management
- Eliminates trial and error needed to determine optimal additive combination
- Helps reduce costs with low loadings, use in the inner skin layer only and elimination of polymer processing additives
- Prevents impact to downstream operations (printing, metallization, welding)
- Avoids potential contamination of package contents
- Improves processability with free-flowing pellets

**Target Applications**
- PE blown film for food and non-food packaging
  - For
    - PE film converters
    - Packaging manufacturers
    - OEMs of packaged goods
Extend Properties, Enhance Processing, Reinforce Materials

Combining an industry-leading portfolio of silicone-based additives and masterbatches - plus deep experience in serving the industries that use them - we can help you capture greater efficiencies in production while delivering more performance, durability and quality to your end-users.

To learn more about our wide range of plastics, visit www.dupont.com/multibase and contact us if you have any questions.