Permanent Slip Additives for PE Multilayer Films

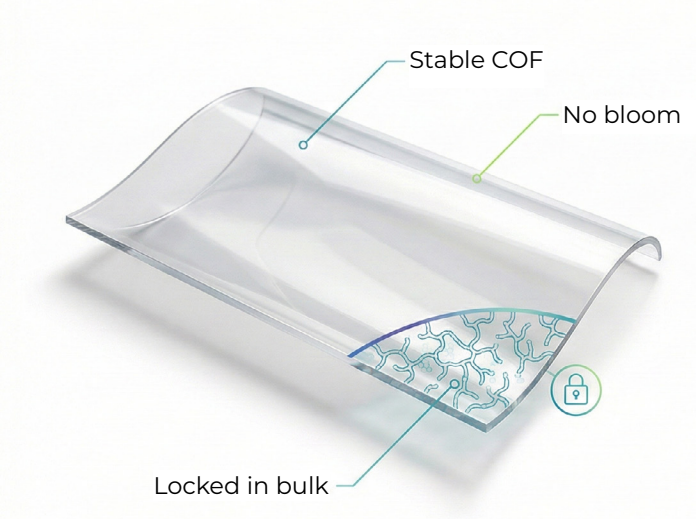
Slip performance in polyethylene films is traditionally achieved using migratory amide additives that bloom to the surface over time. While effective initially, this mechanism often leads to unstable COF, surface contamination, and interference with downstream converting processes.

SL9387PE EU is a permanent slip solution designed to overcome these limitations. Chemically anchored within the polyethylene matrix, the slip functionality is locked into the film structure from the moment of extrusion, delivering consistent and predictable performance throughout the product lifecycle.

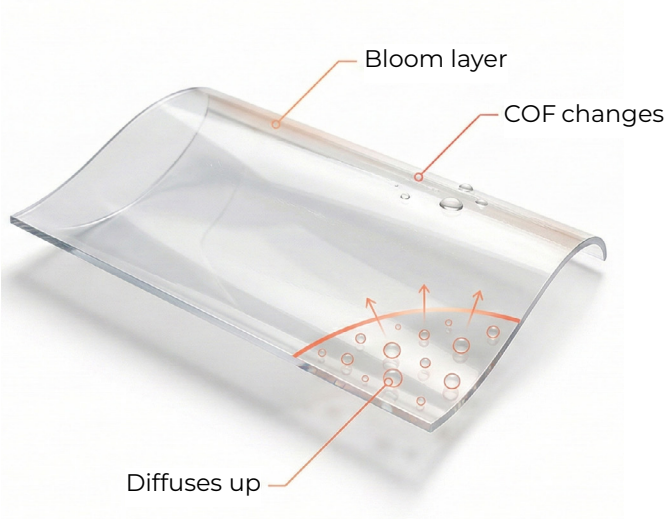
Key Benefits

- **Stable COF Over Time:** Maintains a consistent coefficient of friction immediately after production and throughout storage, even under elevated temperatures.
- **No Surface Migration:** Eliminates blooming effects associated with traditional amide slips, preventing surface contamination and performance variability.
- **Superior Converting Performance:** Provides a clean and stable surface for demanding converting processes:
  - **Printing:** Improved ink adhesion and reduced surface defects such as fisheyes
  - **Lamination:** Higher bond strength and lower risk of delamination
  - **Metallization:** Consistent surface energy for reliable metal deposition
- **No Additive Transfer:** Slip remains within the polymer matrix, making it suitable for sensitive applications such as electronic packaging or high-purity chemical products.
- **High-Temperature Stability:** Unlike migratory slips that may evaporate or become tacky under heat, permanent slip maintains lubricity during hot-fill, sterilization, or high-speed processing.

Permanent Slip (Non-migratory)



Migratory Slip



Applications

Form-Fill-Seal (FFS) Packaging

Enables stable high-speed operation without COF fluctuations caused by friction-induced heat.

Lamination Base Films

Supports consistent friction behavior in PE-to-PE and PE-to-metal laminate structures.

Protective & Electronics Packaging

Prevents additive transfer to sensitive components and high-value surfaces..

Supporting Sustainability Goals

- **Reduced Scrap Rates:** Stable COF minimizes out-of-spec production during printing and lamination, reducing material waste.
- **Recycling Compatibility:** Integrated at low let-down ratios and anchored in the polymer matrix, the additive does not interfere with mechanical recycling of PE streams.
- **Extended Shelf Life:** Consistent slip performance over time helps prevent processing failures and supply-chain disruptions.
- **Energy Efficiency:** Improved process stability enables higher converting speeds, reducing energy consumption per unit produced.