



DOW CORNING

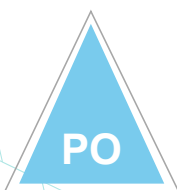


DOW CORNING™ MB25-235 Masterbatch

Long-lasting, high-efficiency slip performance for form-fill-seal packaging and agricultural films

Features

- Lower dynamic COF than organics at low loadings (e.g., 0.29 COF in film against metal at 2 wt%)
- Stable, long-lasting slip performance
- No migration across film layers
- Maintenance of key mechanical properties
- Food contact compliance under U.S. Food & Drug Administration (FDA), European Union (EU) 10-2011 and Chinese GB4806.1-2016 and GB9685-2016 regulations
- Easy dosing
- No die build-up or gel deposition during extrusion



POLYOLEFINS

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.

DOW CORNING™ MB25-235 Masterbatch is an advanced silicone technology that surpasses organic additives by delivering consistently low COF, unaffected by time duration or temperature. It will not impact mechanical properties like tensile strength and tear strength, or migrate to the film surface. This masterbatch avoids the undesirable attributes of erucamide and oleamide additives, which quickly and easily migrate to and transfer between film surfaces – and from film to package contents – during rolling and storage. In turn, the transferred additive can interfere with downstream operations such as printing and metallization.

In addition to solving the migration problems of organics, which can potentially cause food contamination, *DOW CORNING* MB25-235 Masterbatch is approved for food contact under Chinese, U.S. FDA and EU regulations. It is ideal for food and non-food packaging using FFS.

Further, this slip additive can be used successfully in agricultural films (mulch film, greenhouse film, silage film) where it delivers stable aging performance and good tear resistance to help withstand environmental impacts.

Importantly, *DOW CORNING* MB25-235 Masterbatch offers several cost advantages. It is effective at low loadings of 2w%-4w% in the desired layer (which also minimizes haze). Unlike organics, it only needs to be incorporated in the outer (skin) layer of multi-layer films, reducing the amount required. Finally, the masterbatch is based on a standard LDPE grade for packaging film to ensure perfect homogeneity that optimizes performance of the slip additive.

Processing advantages include smooth feeding of the non-sticky masterbatch pellets into the extruder. The formulation also prevents die build-up and gel formation.

Advantages

- Reduces friction for higher throughput and productivity in FFS packaging and agricultural film production
- Extends COF performance to accommodate delays between film extrusion and FFS operations
- Maintains quality by preventing migration of slip additive between layers or into package contents
- Minimizes impact on downstream printing and metallization
- Optimizes processing with smooth dosing and homogeneous dispersion
- Controls costs with lower loadings and used in only the skin layer of multi-layer film

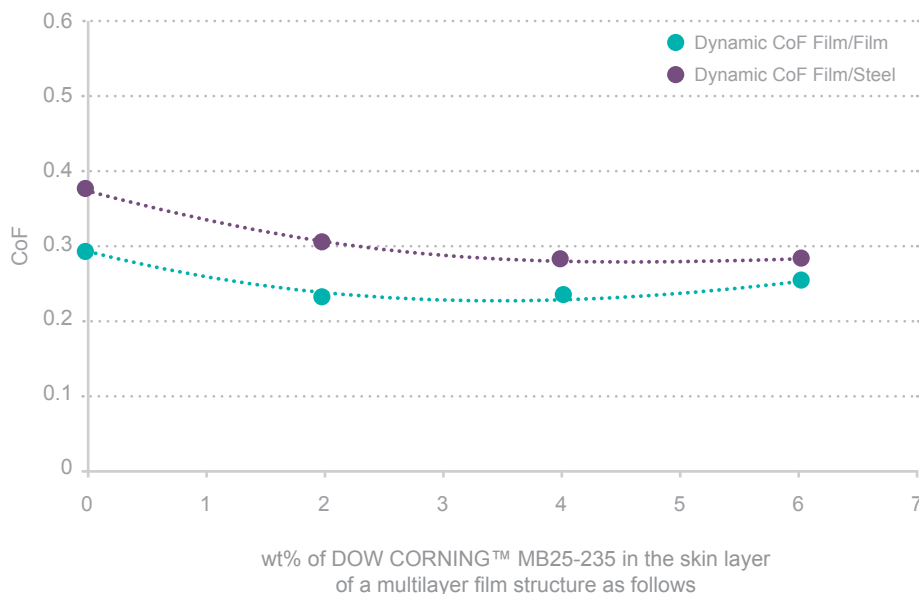
Target Applications

- LDPE resins and blends used for blown film in FFS operations
- Linear low-density PE (LLDPE) for FFS and lamination operations
- LDPE/LLDPE resins and blends used for agricultural films

Target Customers

- Film producers for FFS packaging
- Polyethylene resin producers of ready-to-use compounds for FFS film producers
- Producers of agricultural films

Dynamic CoF Film/Film & Film/Steel as a function of DOW CORNING™ MB25-235 content (+3000ppm AB = Talc)



A	12.5 µm	LLDPE/LDPE 2/1 + 3000ppm Talc + 2.4 and 6wt% DOW CORNING™ MB25-235
B	25 µm	LDPE - d = 0.918 - MFI 2.5 g/10min
C	12.5 µm	LLDPE - d = 0.900 - MFI 3 g/10min

Many Solutions. One Source.

As a longtime global leader in developing innovative silicon-based solutions, Dow Performance Silicones offers additives and masterbatches that extend properties, enhance processing and reinforce materials. From fluids to pellets, our products help simplify access to the unique benefits of silicone technology.

To learn more about Dow Performance Silicones' wide range of plastics and composites solutions, visit www.dow.com/en-us/transportation/solutions/multibase or go to consumer.dow.com/contactus for a contact close to your location.

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