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MB-ADD-SAB • High-Performance Slip & Anti-Block

Combined Functional Additive Pack for Blown & Cast Polyolefin Films

GRADE: ADDITIVE COMBI

1. PRODUCT DESCRIPTION & CHARACTERISTICS

AdCol MB-ADD-SAB is a synergistically formulated dual-action additive masterbatch containing high-purity refined erucamide (slip agent) and ultra-fine micronized natural silica (anti-blocking agent) dispersed in a virgin LLDPE matrix. It prevents film-layer fusion on winding reels, reduces kinetic and static coefficient of friction (COF), and ensures smooth line conveyance on high-speed bag-making equipment.

2. TYPICAL PHYSICAL & RHEOLOGICAL PROPERTIES

Property / Parameter	Test Method	Unit	Typical Value	Tolerance
Active Slip Agent (Refined Erucamide)	Internal GC Analysis	%	**5.0**	± 0.5%
Active Anti-Block (Micronized Silica)	ASTM D5630 (Ash Analysis)	%	**10.0**	± 0.8%
Anti-Block Particle Size (D50)	Laser Diffraction	µm	**4.5**	± 0.5
Carrier Polymer System	FTIR Identification	—	**Polyethylene (LLDPE)**	—
Specific Gravity (Density @ 23°C)	ASTM D792 / ISO 1183	g/cm³	**0.98**	± 0.02
Melt Flow Index (190°C / 2.16 kg)	ASTM D1238 / ISO 1133	g/10 min	**18.0**	± 4.0
Moisture Content / Volatiles	ASTM D6980	%	**≤ 0.15**	Max
Thermal Heat Stability	DIN 53772	°C	**260**	Standard
Target Film COF (Kinetic)	ASTM D1894 (after 24 hrs)	—	**< 0.20**	Dynamic
Optical Clarity / Haze Impact	ASTM D1003	%	**Minimal Haze (< 2%)**	Optimized
Pellet Geometry	Visual	—	**Lens / Cylindrical**	Uniform

Recommended Processing & Let-Down (LDR)

- **Monolayer Blown Film:** 1.0% to 2.0% LDR.
- **Multilayer Barrier Film (Skin Layer):** 1.5% to 3.0% LDR.
- **Lamination & Liner Films:** 0.8% to 1.5% LDR.
- **Processing Note:** Erucamide migration stabilizes within 24 to 48 hours after extrusion at ambient temperature.

Regulatory, Packaging & Storage

- **Food Packaging:** Approved under FDA 21 CFR 177.1520 & 178.3860.
- **RoHS & REACH:** Compliant with EU regulations; free from phthalates.
- **Packaging:** 25 kg moisture-proof PE-lined craft paper bags.
- **Storage:** Store below 30°C in dry conditions to prevent slip sintering.

Technical Note: Keep processing melt temperatures below 250°C to prevent oxidative degradation of fatty acid amides and preserve optical film clarity.