AMPACET

MASTERBATCH SOLUTIONS FOR ORIENTED FILM APPLICATIONS (BOPP, BOPE, MDO)

The Expert in Masterbatch Solutions for Oriented Films

Following a presence of more than 35 years on the oriented film market, Ampacet has developed a leading position supplying high volume general purpose as well as specialty masterbatches to mono & bi-oriented film manufacturers on a word-wide scale.

Ampacet global manufacturing presence, enhanced by a local expertise on oriented film applications (i.e. food and non-food packaging, labeling, lamination, adhesive tapes, ...), allow Ampacet to serve the high demanding film market through a local dedicated team.

With a specific R&D team, spread over the world, working exclusively on masterbatches for the oriented film market, Ampacet is committed to Innovation in order to develop masterbatches to answer new market requirements, support customers in their new product development projects and bring value to its customers.

Ampacet is offering a complete range of masterbatch solutions for the manufacture of mono & bi-oriented films answering most of the BOPP, BOPE and MDO film applications requirements. Ampacet product range consists in opaque masterbatches (i.e. solid-whites, cavitating masterbatches, various combinations of white-opaque products as well as synthetic paper) as well as a broad range of additives masterbatches (i.e. general purpose and specialty antiblocks, migratory and non-migratory antistatics and slips, combinations of slip-antistatic and slip-antiblock masterbatches, antifogs, various matte compounds, modifiers, purging compound, Ultra-Violet barrier...).

You will find in enclosed Oriented Film Product Guide, a good overview of Ampacet product offering for the European BOPP, BOPE & MDO film market.

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OPAQUE MASTERBATCH SOLUTIONS

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SOLID-WHITE MASTERBATCHES

Ampacet's Solid-White portfolio consists in Premium and Standard Quality White Mastrebatches specially designed and recommended to provide excellent whiteness and opacity to high-end BOPP solid-white film applications where premium & standard quality and performances are required.

Name	Code	Carrier Resin	White Pigment Type	White Pigment Loading [%]	MFI 230°C / 2.16 kg [g/10 min]	Specific gravity	Bulk Density [g/l]	EC Food Status (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
WHITE 95	413655	PP Homo	TiO_2	60%	5	1.70	945	Yes	X	X	X	X	X	X	Premium performance and dispersion quality 60% White grade for outstanding whiteness & film opacity.
WHITE 96 PF	4100018-E	Non-Phthalate Catalyst PP Homopolymer	TiO2	60%	8.5	1.70	910	Yes	X	X	X	X	X	X	Phthalate-free Standard performance and dispersion quality 60% White grade for excellent whiteness & film opacity.
WHITE 97 PF	4100486-E	Non-Phthalate Catalyst PP Homopolymer	TiO2	70%	11(**)	2.00	1060(**)	Yes	X	X	X	X	X	X	Phthalate-free Standard performance and dispersion quality 70% White grade for excellent whiteness & film opacity.

WHITE-OPAQUE MASTERBATCHES

Ampacet's White-Opaque Masterbatches combine white pigments and cavitating agents to provide a single solution for high whiteness and high opacity low density BOPP films.

Name	Code	Carrier Resin	Pigment & Cavitating Agent Types	Pigment & Cavitating Agent Loadings [%]	MFI 230°C / 2.16 kg [g/10 min]	Specific gravity	Bulk Density [g/l]	EC Food Status (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
WHOP 70	410422-V	PP Homo	TiO_2 / $CaCO_3$	10% / 60%	5.5	1.73	900	Yes	X	X	X	X	X	X	Very low density general purpose white-opaque packaging film.
WHOP 3	412299	PP Homo	TiO_2 / $CaCO_3$	30% / 40%	5	1.81	970	Yes	X	X	X	X	X	X	High opacity & whiteness, medium density white-opaque film for packaging.
WHOP 6	410685	PP Homo	Proprietary	70%	6.5	1.80	960	Yes	X	X	X	X	X	X	High opacity & whiteness, medium density white-opaque film for labelling & ice-cream packaging.
WHOP 8	410970	PP Homo	Proprietary	70%	6	1.80	940	Yes	X	X	X	X	X	X	High opacity & whiteness, low density white-opaque film for labelling & ice-cream packaging.

CAVITATING MASTERBATCHES

Ampacet's Cavitating Masterbatches are specially designed and recommended for lowering the density of BOPP films and increasing the yield.

Name	Code	Carrier Resin	Cavitating Agent Type	Cavitating Agent Loading [%]	MFI 230°C / 2.16 kg [g/10 min]	Specific gravity	Bulk Density [g/l]	EC Food Status (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
PEARL 2	400707	PP Homo	$CaCO_3$	70%	10	1.70	890	Yes	X	X	X	X	X	X	Medium density film with homogeneous pearl effect, good opacity & whiteness index. Smooth surface for printing & good sealing performances.
PEARL 2 A	403250-E	PP Homo	$CaCO_3$	70%	10	1.70	890	Yes	X	X	X	X	X	X	Medium density film with homogeneous pearl effect, high opacity, good whiteness index & very good sealing strength. Low screen-pack plugging & high operation efficiency.
PEARL 70	100236	PP Homo	$CaCO_3$	72%	3.5	1.73	950	Yes	X	X	X	X	X	X	Very low film density film with homogeneous pearl effect.
PEARL 82	402884	PP Homo	Organic	40%	4	1.03	530	Yes	X	X	X	X	X	X	Very low density film with high gloss "mirror like" effect, superior whiteness & mechanical properties.
PEARL 499	4000499-E	PP Homo	Organic	50%	ND(**)	1.07	ND(**)	Yes	X	X	X	X	X	X	Very low density film with high gloss "mirror like" effect, superior whiteness & mechanical properties.

(*) For a complete regulatory status and specific details, please contact your local Ampacet Sales Representative
(**) Temporary specifications
ND: Not Determined

ADDITIVE MASTERBATCH SOLUTIONS

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SLIP MASTERBATCHES

Slip Masterbatches are used to easily slide one BOPP film onto another one allowing a good machinability during film converting and handling. Added in the core layer of BOPP films, conventional slip agents are uncompatible with the polymer matrix and migrate to the film surface forming a greasy layer providing good slip properties (low Coefficient of Friction - CoF) to the films. Hot-slip Masterbatches, added in the skin layers of BOPP films, provide not only permanent medium slip properties, but also good machinability when converting the film on high speed lines as it maintains a good sliding of the film on metallic part of the equipment warmed-up by friction.

									Film Types						
Name	**Code**	**Carrier Resin**	**Slip Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
HOSLIP 6 PF	40876	Non-Phthalate Catalyst PP Homopolymer	Erucamide	6%	19	0.90	550	Yes	X	X		X		X	Long term slip effect, low odor and discoloration, reduced blooming effect.
CIGA 54	400954	PP Random Copolymer	Proprietary Non-migratory	Proprietary	11	0.91	560	Yes	X	X	X	X	X	X	Hot-slip properties for high speed packaging lines.

ANTIBLOCK MASTERBATCHES

Antiblock Masterbatches are used to easily separate BOPP films, which naturally tend to stick one onto the other when rolled, through the creation of small asperities on the film surface allowing to entrap air during the winding process avoiding blocking problems. Used in skin layers of BOPP films, Antiblock Masterbatches may also influence the slip as well as the optical properties of the films depending on the type and quantity used.

									Film Types						
Name	**Code**	**Carrier Resin**	**Antiblock Additive Type**	**Addi-tive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
HOBLOCK 5	400026-A	PP Homopolymer	Synthetic Silica	5%	7	0.93	490	Yes	X			X	X	X	General purpose antiblock for plain films with excellent antiblocking effect.
HOBLOCK 10	400013	PP Homopolymer	Synthetic Silica	10%	7	0.96	500	Yes	X			X	X	X	General purpose antiblock for plain films with excellent antiblocking effect.
SKIBLOCK 5 PF	4000264-E	Non-Phthalate Catalyst PP Random Copolymer	Synthetic Silica	5%	7.5	0.92	500	Yes		X		X	X	X	Phthalate-free General Purpose Antiblock for Heat-sealable films with excellent antiblocking effect
SKIBLOCK 10	400014	PP Random Copolymer	Synthetic Silica	10%	3.5	0.95	500	Yes		X		X	X	X	General purpose antiblock for heat-sealable films with excellent antiblocking effect.
METBLOCK 19C	4000125-E	PP Random Terpolymer	Specialty Inorganic Antiblock	6%	5	0.94	490	Yes		X	X	X	X	X	General purpose antiblock for heat-sealable metallizable films for medium COF.
SEABLOCK 2	402172-E	PP Random Copolymer	Fine Organic Antiblock	5%	10	0.91	500	Yes		X	X	X	X	X	Specialty antiblock for permanent and consistent low COF & high optics, designed for thin skin layers, suitable for heat-sealable metallizable films.
SEABLOCK 4	401960-E	PP Random Terpolymer	Organic Antiblock	5%	5	0.92	500	Yes		X	X	X	X	X	Specialty antiblock for permanent and consistent low COF & high optics, suitable for heat-sealable metallizable films.

ANTIBLOCK MASTERBATCHES

Name	Code	Carrier Resin	Antiblock Additive Type	Additive Loading [%]	MFI 230°C / 2.16 kg [g/10 min]	Specif-ic gravity	Bulk Density [g/l]	EC Food Status (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
SEABLOCK 4S	401960-EF	PP Random Terpolymer	Organic Antiblock	5%	7	0.92	480	Yes		X	X	X	X	X	Superior organic antiblock masterbatch providing immediate and consistent slip properties for efficient operability during converting (e.g. slitting, printing, metallizing...) & packing operations. Prevents antiblock particle extraction from the film during high speed converting ("scuffing"), avoids dust accumulation & unpredictable variations of slip properties along the converting steps.
SEABLOCK 6	403385	PP Random Terpolymer	Large Organic Antiblock	5%	5	0.92	500	Yes		X	X	X	X	X	Specialty antiblock for permanent and consistent low COF & high optics, designed for thick skin layers, suitable for heat-sealable metallizable films.
SEABLOCK 98	400880-A	PP Homopoly-mer	Fine Organic Antiblock	4%	13	0.91	480	Yes	X		X	X	X	X	Specialty antiblock for permanent and consistent low COF & high optics, suitable for plain metallizable films.
TASC 25	401825	PP Random Copolymer	Fine Specialty Antiblock	5%	10	0.91	500	Yes		X	X	X	X	X	Specialty antiblock for permanent and consistent very low COF & excellent optics, suitable for heat-sealable metallizable films.

SLIP/ANTIBLOCK MASTERBATCHES

Slip/Antiblock Masterbatches combine in one single masterbatch the antiblocking and slip effects, for use in skin layers of BOPP films.

									Film Types						
Name	**Code**	**Carrier Resin**	**Slip & Antiblock Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
SKISLAB 1	400144	PP Random Copolymer	Erucamide / Synthetic Silica	5% / 5%	8	0.92	540	Yes		X		X		X	Optimized combination of slip & antiblocking properties.
SATO 62	400962	PP Random Copolymer	Proprietary Non-migratory / Fine Organic Antiblock	Proprietary	14	0.92	570	Yes		X	X	X	X	X	Permanent slip & hot-slip properties for high speed packaging lines, designed for thin skin layers.

ANTISTATIC MASTERBATCHES

Antistatic Masterbatches are added to the core layer of BOPP films to prevent various problems (electrical shock, dust pick-up, static sticking, ...) linked to static charges building on the film surface. Conventional antistatic agents are migrating to the film surface, picking-up moisture molecules from the surrouding atmosphere and creating a thin water molecules layer dissipating electrical charges at the film surface.

									Film Types						
Name	**Code**	**Carrier Resin**	**Antistatic Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
ASCORE	400560	PP Homopolymer	Long & Short term Antistatic blend	11%	7	0.91	520	Yes	X			X	X	X	Optimized antistatic with good slip properties.
ASCORE 2	403412	PP Homopolymer	Long & Short term Antistatic blend	22%	15	0.90	550	Yes	X			X	X	X	Cost performance optimization, especially for very thin plain films. Optimized antistatic with good slip properties.
ANSTAT	400565	PP Homopolymer	Long & Short term Antistatic blend	12%	7	0.91	535	Yes		X		X	X	X	Optimized antistatic properties.
HOSTAT 87	400687	PP Homopolymer	Long term Antistatic	10%	6	0.90	560	Yes	X	X		X	X	X	Slow migration rate & long term antistatic effect.
PERMSTAT 232	4000232	PP Random Terpolymer	Proprietary	Proprietary	26 (**)	0.95	530 (**)	Yes	X	X	X	X	X	X	Unique high performance permanent antistatic solution for the bi-orientation process. Provides immediate and consistent antistatic properties independent from storing conditions, excellent aesthetics with outstanding optics, making it the preferred solution for labelling applications (IML, Cut & Stack, "no-label" look) as well as designed for metallized packaging and other specialty BOPP film applications.

SLIP/ANTISTATIC MASTERBATCHES

Slip/Antistatic Masterbatches combine in one single masterbatch the slip and antistatic effects, for use in core layer of BOPP films.

									Film Types						
Name	**Code**	**Carrier Resin**	**Slip & Antistatic Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
COEXAS 33	400577-B	PP Homopolymer	Erucamide / Long & Short term Antistatic blend	15%	9	0.91	550	Yes	X	X		X	X	X	Optimized combination of slip & antistatic properties with low impact on optics, designed for cold & moderate climates.
COEXAS 66	403358	PP Homopolymer	Erucamide / Long & Short term Antistatic blend	30%	36	0.90	540	Yes	X	X		X	X	X	Cost performance optimization. Optimized combination of slip & antistatic properties with low impact on optics, designed for cold & moderate climates.
COEXAS	400577-A	PP Homopolymer	High Molecular Weight Slip / Long & short term Antistatic blend	15%	8	0.91	550	Yes	X	X		X	X	X	Optimized combination of slip & antistatic properties with low impact on optics, designed for hot climates.
COEXAS 2	403362	PP Homopolymer	High Molecular Weight Slip / Long & short term Antistatic blend	30%	27	0.90	550	Yes	X	X		X	X	X	Cost performance optimization. Optimized combination of slip & antistatic properties with low impact on optics, designed for hot climates.

ANTIFOG MASTERBATCHES

Antifog Masterbatches are added to BOPP film structures used in food packaging applications to avoid water droplet formation/condensation at the film surface preserving excellent film transparency avoiding food deterioration.

									Film Types						
Name	**Code**	**Carrier Resin**	**Antifog Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
HYDROCLEAR 2	402655-A	PP Homopolymer	Proprietary	Proprietary	15	0.89	540	Yes		X					High performance antifog for applications requiring EC and US FDA food approvals.

MODIFIER MASTERBATCHES

Modifier Masterbatches are designed to be added to BOPP film structures to modify the polymer intrinsic properties and enhance the performances of BOPP film applications such as stiffness, twist retention and dead-fold, shrinkage, clarity, seal initiation temperature as well as barrier properties.

									Film Types						
Name	**Code**	**Carrier Resin**	**Modifier Additive Type**	**Additive Loading [%]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
SEAFIRM 60	404526-E	PP Homopolymer	Hydrocarbon resin	60%	ND	0.94	560	Yes	X	X	X	X	X	X	Improves film performances, especially designed for barrier, stiffness & mechanical properties improvements.
SEAFIRM 609	4000079-E	PP Homopolymer	Hydrocarbon resin	60%	ND	0.94	530	Yes	X	X	X	X	X	X	Improves film performances, especially designed for shrinkage, stiffness & optical properties improvements. Suitable for high shrink tobacco wrapping applications.
SEAFIRM 709	4000224-E	PP Homopolymer	Hydrocarbon resin	70%	ND	0.96	570(**)	Yes	X	X	X	X	X	X	Improves film performances, especially designed for shrinkage, stiffness & optical properties improvements. Suitable for high shrink tobacco wrapping applications.

MATTE COMPOUNDS

Matte Compounds are designed to be used at 100% in outer layers of BOPP film structures, generate a controlled inhomogeneous film surface that diffuses the incident light in all directions and provides an outstanding high haze and low gloss to the film enhancing its aesthetics & haptics.

									Film Types						
Name	**Code**	**Carrier Resin**	**Additive Type**	**SIT Matte/ Matte (***) [°C]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
MATIF 97LX	400700-EA	Proprietary	-	120	3.1	0.92	500	Yes	X	X	X	X		X	General purpose matte compound with excellent matte properties (Haze > 75% - Gloss @ 45° < 8) and film homogeneity, designed for lamination, including dry lamination, providing high quality finish to graphic arts applications.
MATIF 120LX	4000513-E	Proprietary	-	120	3(**)	0.92	500(**)	Yes	X	X	X	X		X	Matte compound with excellent matte properties (Haze > 75% - Gloss @ 45° < 8) and film homogeneity, designed for lamination, including dry lamination, providing high quality finish to graphic arts applications. Allows significant down-gauging of the matte layer keeping outstanding matte properties & film uniformity.

MATTE COMPOUNDS

									Film Types						
Name	**Code**	**Carrier Resin**	**Additive Type**	**SIT Matte/ Matte (***) [°C]**	**MFI 230°C / 2.16 kg [g/10 min]**	**Specific gravity**	**Bulk Density [g/l]**	**EC Food Status (*)**	**Plain**	**Heat-sealable**	**Metallizable**	**Matte**	**High Speed Wrapping**	**Cavitated**	**Benefits**
MATIF 115	4000481-E	Proprietary	-	115	3(**)	0.92	500(**)	Yes	X	X	X	X		X	Sealable matte compound with excellent matte properties (Haze > 75% - Gloss @ 45° < 8) and film homogeneity. Allows significant down-gauging of the matte layer keeping outstanding matte properties & film uniformity. Designed for packaging applications (SIT of 115°C).
MATIF 105	4000144-E	Proprietary	-	105	3	0.92	500	Yes	X	X	X	X		X	Medium temperature sealable matte compound with excellent matte properties (Haze > 75% - Gloss @ 45° < 8) and film homogeneity. Allows significant down-gauging of the matte layer keeping outstanding matte properties & film uniformity. Designed for packaging applications (SIT of 105°C).
MATIF 95	4000143-E	Proprietary	-	95	3	0.91	500	Yes	X	X	X	X	X	X	Low temperature sealable matte compound with excellent matte properties (Haze > 75% - Gloss @ 45° < 8) and film homogeneity. Allows significant down-gauging of the matte layer keeping outstanding matte properties & film uniformity. Designed for low seal packaging applications (SIT of 95°C).

OTHER MASTERBATCHES

Name	Code	Carrier Resin	Additive Type	Additive Loading [%]	MFI 230°C / 2.16 kg [g/10 min]	Specif-ic gravity	Bulk Density [g/l]	EC Food Sta-tus (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
PROFLOW 545	4000545-E	PP Random Terpolymer	PFAS-free & Siloxane-free	Proprietary	ND	0.96	ND(**)	Yes	X	X	X	X	X	X	Global Food compliant PFAS-free & Siloxane-free processing aid
GASTOP-Flex 0411A	4000411-EA	PP Homopolymer	Proprietary	Proprietary	45(**)	1.00	600(**)	Yes	X	X	X	X	X	X	Gas Barrier solution, allows to reduce OTR and WVTR up to 60%. Designed for general purpose packaging as well as high barrier packaging allowing a reduction of EVOH content in compliance with most popular design guidelines for circular economy (e.g. EVOH < 5%)
REVIVE 311 E	1000311-E	Proprietary	Compatibilizer	Proprietary	33	0.94	500	Yes	X	X	X	X	X	X	General purpose compatibilizer for polyamide and EVOH into polyolefins

OTHER MASTERBATCHES

Name	Code	Carrier Resin	Additive Type	Additive Loading [%]	MFI 230°C / 2.16 kg [g/10 min]	Specif-ic gravity	Bulk Density [g/l]	EC Food Sta-tus (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
LaserMarkFlex 452	4000452-E	PP Homopolymer	Laser Marking	Proprietary	ND	0.92	ND	Yes	X	X	X			X	Laser marking providing light grey marks on white or clear films using NdYAG laser technology.
GERMSCLEAN 684	1000684-E	PE Copolymer	Antimicrobial	Proprietary	5(1)	1.06	530	Yes	X	X	X			X	Inorganic antimicrobial additive technology that ensures long-lasting effective protection of plastics against proliferation of a wide variety of harmful microorganisms (bacteria and fungi), keeping plastic surfaces clean, hygienic and germs-free.
PROCLEAN	400882-B	PP Homopolymer	Purging	Proprietary	5	0.91	ND	No							Cleaning compound for fast transition time as well as line shut-down.
RESTAB	400572	PP Homopolymer	Stabilizer	Proprietary	3.5 (**)	0.91	460 (**)	Yes							Reduce gel formation with poor stabilized polypropylene. Suitable for stabilizing reclaim.

(1) 190°C/2.16kg
(*) For a complete regulatory status and specific details, please contact your local Ampacet Sales Representative
(**) Temporary specifications
(***) Seal Initiation Temperature matte to matte @ 0.25 MPa sealing pressure & 0.2 sec dwell time
ND: Not Determined

MASTERBATCH SOLUTIONS FOR MONO AND BI-ORIENTED POLYETHYLENE FILMS

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BIAX4CE™ PORTFOLIO

The orientation of polyethylene is an emerging film technology targetting mono-material polyethylene packaging for a higher performing circular economy as well as replacement of conventional blown films offering significant down-gauging opportunities. Produced on mono or bi-orientation lines, manufacturing MDO and BOPE films requires dedicated masterbatch portfolio as Ampacet BIAX4CE™.

Family	Name	Code	Carrier Resin	Active Agent	Additive Loading	Recommend-ed Addition Rate	Additivated Layers	Typical Performance & Benefits
Antiblock	BIAX4CE™ AB 1060	1001060-E	LLDPE	Silicate	20%	1 - 2%	Skins	General purpose antiblock. Medium COF without addition of slip additive.
Antiblock	BIAX4CE™ AB 1062	1001062-E	LLDPE	Synthetic Silica	20%	1 - 2%	Skins	Excellent antiblocking performance.Medium COF without addition of slip additive.
Antiblock	BIAX4CE™ AB 1064	1001064-E	LLDPE	Organic Antiblock	5%	4 - 6%	Skins	Good antiblock. Low COF without addition of slip additive.
Antiblock	BIAX4CE™ AB 1115	1001115-E	LLDPE	Specialty Inorganic Antiblock	10%	2 - 4%	Skins	Excellent optics with low haze. Medium COF without addition of slip additive.
Slip	BIAX4CE™ SLIP 1063	1001063-E	LLDPE	Erucamide	5%	2 - 4%	Core	General purpose slip.
Slip	BIAX4CE™ SLIP 1119	1001119-E	LLDPE	Proprietary Non-migrating	Proprietary	7 - 10%	Skins	Permanent very low slip effect.
Antistatic	BIAX4CE™ AS 1117	1001117-E	LLDPE	Slow Migrating	5%	2 - 4%	Core	General purpose antistatic. Long term effect.
Antifog	BIAX4CE™ AF PE MB	1000170-E	LLDPE	Proprietary	Proprietary	12- 15%	Core & Tie (seal side)	Fast and outstanding antifog performance. Suitable for use in single side (printable) or both-side treated films.
Antioxidant	BIAX4CE™ AO PE MB	103456	LDPE	Proprietary	Proprietary	1 - 2%	All	Allows to minimize yellowing issues, especially when reclaiming BOPE film scraps.

BIAX4CE™ PORTFOLIO

Family	Name	Code	Carrier Resin	Active Agent	Additive Loading	Recommend-ed Addition Rate	Additivated Layers	Typical Performance & Benefits
Processing Aid	BIAX4CE™ PROFLOW 1485	1001485-E	LLDPE	Proprietary Formulated without PFAS and Siloxane	Proprietary	1-4%	Skins	Global Food compliant PFAS-free & Siloxane-free processing aid
Matte	BIAX4CE™ MATIF 115	4000481-E	Proprietary	-	-	100%	Skin	Sealable matte (SIT of 115°C) with excellent matte properties and film homogeneity designed for MDO and LL-BOPE films
Matte	BIAX4CE™ MATIF 105	4000144-E	Proprietary	-	-	100%	Skin	Sealable matte (SIT of 105°C) with excellent matte properties and film homogeneity designed for MDO and LL-BOPE films
Matte	BIAX4CE™ MATIF 1462	1001462-E	Proprietary	-	-	100%	Skin	Sealable matte (SIT of 105°C) with excellent matte properties and film homogeneity designed for HD-BOPE films
Barrier	GASTOP-Flex	Various	Proprietary	Proprietary	Proprietary	20%	All	Boost OTR & WVTR of PE films. Allow high barrier packaging with low EVOH content (< 5%) in-line with packaging design guidelines
Cavitation	PEARL 0673	1100673-E	HDPE	Mineral	70%	10 – 25%	Core	Medium density cavitated film
Cavitation	PEARL 1485	1101485-E	HDPE	Mineral	70%	10 – 25%	Core	Low density cavitated film
White	BIAX4CE™ WHITE PE MB	11898-I	LLDPE	TiO2	60%	10 - 20%	Core	Premium high performance & dispersion quality 60% white grade for excellent whiteness & film opacity

Version - April 2025

AMPACET

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Version: April, 2025