

# AMPACET



MASTERBATCH SOLUTIONS  
FOR **BOPP** APPLICATIONS

# The Expert in Masterbatch Solutions for Bi-oriented Films (BOPP & BOPE)

Following a presence of more than 30 years on the bi-oriented film market, Ampacet has developed a leading position supplying high volume general purpose as well as specialty masterbatches to bi-oriented film manufacturers on a world-wide scale.

Ampacet global manufacturing presence, enhanced by a local expertise on bi-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 bi-oriented film as major focus.

With a specific R&D team, spread over the world, working exclusively on masterbatches for the bi-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 bi-oriented films answering most of the BOPP and BOPE applications requirements. Ampacet product range consists in opaque masterbatches (i.e. solid-whites, cavitating masterbatches, various combinations of white-opaque products) 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 bi-oriented film Product Guide, a good overview of Ampacet product offering for the European BOPP & BOPE film market.

The Ampacet logo features the word "AMPACET" in a bold, black, sans-serif font. The letter "A" is stylized with a small triangle above it, and the letter "C" is stylized with a small circle above it. The background of the slide shows rolls of BOPP and BOPE films in various colors (yellow, white, blue, and clear) and textures (opaque, translucent, and crinkled).

## OPAQUE MASTERBATCH SOLUTIONS



## PREMIUM SOLID-WHITE MASTERBATCHES

Ampacet's Premium Solid-White Masterbatches are specially designed and recommended to provide excellent whiteness and opacity to high-end BOPP solid-white film applications where premium quality and outstanding 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 <sub>2</sub>	60%	5	1.70	945	Yes	X	X	X	X	X	X	High performance & dispersion quality 60% white grade for excellent whiteness & film opacity.
WHITE 70 A	4100179-E	PP Homo	TiO <sub>2</sub>	70%	3.5	2.00	1110	Yes	X	X	X	X	X	X	High performance & dispersion quality 70% white grade for excellent whiteness & film opacity.

## 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 <sub>3</sub>	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 <sub>3</sub>	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 <sub>3</sub>	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.

## 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 <sub>2</sub> / CaCO <sub>3</sub>	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 <sub>2</sub> / CaCO <sub>3</sub>	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.

(\*) For a complete regulatory status and specific details, please contact your local Ampacet Sales Representative





## 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 incompatible 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						Benefits
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	
HOSLIP 6 PF	40876	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.

Name	Code	Carrier Resin	Antiblock Additive Type	Additive 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	
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	40878	PP Random Copolymer	Synthetic Silica	5%	7.5	0.92	470	Yes		X		X	X	X	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

									Film Types						Benefits
Name	Code	Carrier Resin	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	
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 Homopolymer	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.

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 (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
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 surrounding atmosphere and creating a thin water molecules layer dissipating electrical charges at the film surface.

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 (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
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.

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 (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
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.

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 (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
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.

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 (*)	Film Types						Benefits
									Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
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.

## 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.

Name	Code	Carrier Resin	Additive Type	Additive 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	
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 105	4000144-E	Proprietary	-	105	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 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).
MATIF CSR 330	4000330-E	Proprietary	-	120	3.1	0.92	500(**)	Yes	X	X	X	X		X	Matte compound with built-in release properties against cold seal, specially designed for packing heat sensitive goods (e.g. chocolate...)

OTHER MASTERBATCHES

									Film Types						Benefits
Name	Code	Carrier Resin	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	
UVBLOCK 347 PP	4000203-E	PP Homopolymer	Proprietary UV Barrier	Proprietary	5.4 (**)	0.94	500 (**)	Yes	X	X					Ultra-Violet barrier solutions for thin high clarity packaging films, protecting light-sensitive food (e.g. peanuts, meat, delicatessen, juices, vitamins...) from degradation by the Ultra-Violet light, maintaining freshness, extending food shelf-life & reducing spoilage.
LaserMark-Flex 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 <sup>(1)</sup>	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.
PROFLOW 2	402390-E	PP Random Copolymer	Processing Aid	Proprietary	5	0.91	500	Yes	X	X	X	X	X	X	Limit die-build-up formation & frequency of die cleaning.
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.

<sup>(1)</sup> 190°C/2.16kg  
(\*) For a complete regulatory status and specific details, please contact your local Ampacet Sales Representative  
(\*\*) Temporary specifications  
ND: Not Determined

## PHTHALATE-FREE MASTERBATCH SOLUTIONS



## NON-PHTHALATE CATALYST RESIN BASED MASTERBATCHES

Being concerned about regulatory, human being & environment safety issues, Ampacet developed a range of masterbatches based exclusively on Non-Phthalate Catalyst Polypropylene Resins, allowing to answer regulatory requests beyond legal requirements.

Name	Code	Carrier Resin	Pigment/ Additive Type	Pigment/ Additive Loading [% ]	Specific gravity	EC Food Status (*)	Film Types						Benefits
							Plain	Heat-sealable	Metalizable	Matte	High Speed Wrapping	Cavitated	
WHITE 95 PF	4100267-E	Non-Phthalate Catalyst PP Homopolymer	TiO <sub>2</sub>	60%	1.70	Yes	X	X	X	X	X	X	High performance & dispersion quality 60% white grade for excellent whiteness & film opacity.
WHITE 70 B PF	412024-EB	Non-Phthalate Catalyst PP Homopolymer	TiO <sub>2</sub>	70%	2.00	Yes	X	X	X	X	X	X	High performance & dispersion quality 70% white grade for excellent whiteness & film opacity.
PEARL 2A PF	4000261-E	Non-Phthalate Catalyst PP Homopolymer	CaCO <sub>3</sub>	70%	1.70	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.
WHOP 3 PF	4100263-E	Non-Phthalate Catalyst PP Homopolymer	TiO <sub>2</sub> / CaCO <sub>3</sub>	30% / 40%	1.81	Yes	X	X	X	X	X	X	High opacity & whiteness medium density film for packaging.

## NON-PHTHALATE CATALYST RESIN BASED MASTERBATCHES

Name	Code	Carrier Resin	Pigment/ Additive Type	Pigment/ Additive Loading [% ]	Specific gravity	EC Food Status (*)	Film Types						Benefits
							Plain	Heat-sealable	Metallizable	Matte	High Speed Wrapping	Cavitated	
HOBLOCK 5 PF	4000263-E	Non-Phthalate Catalyst PP Homopolymer	Synthetic Silica	5%	0.93	Yes	X	X	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%	0.92	Yes	X	X	X	X	X	X	General purpose antiblock for heat-sealable films with excellent antiblocking effect.
HOSLIP 6 PF	40876	Non-Phthalate Catalyst PP Homopolymer	Erucamide	6%	0.90	Yes	X	X		X	X	X	Long term slip effect, low odor and discoloration, reduced blooming effect.
SEABLOCK 4 PF	4000262-E	Non-Phthalate Catalyst PP Random Terpolymer	Organic Antiblock	5%	0.92	Yes	X	X	X	X	X	X	Specialty antiblock for permanent and consistent low COF & high optics, suitable for heat-sealable metallizable films.
TASC 25 PF	4000256-E	Non-Phthalate Catalyst PP Random Copolymer	Fine Specialty Antiblock	5%	0.91	Yes	X	X	X	X	X	X	Specialty Antiblock for permanent and consistent very low COF & excellent optics, suitable for heat-sealable metallizable films.
ANSTAT PF	4000255-E	Non-Phthalate Catalyst PP Homopolymer	Long & Short term Antistatic blend	12%	0.91	Yes	X	X		X	X	X	Optimized antistatic properties.
COEXAS 33 PF	4000265-E	Non-Phthalate Catalyst PP Homopolymer	Erucamide / Long & Short term Antistatic blend	15%	0.91	Yes	X	X		X	X	X	Optimized combination of slip & antistatic properties with low impact on optics, designed for cold & moderate climates.
MATIF 97 LX PF	4000254-E	Non-Phthalate Catalyst Proprietary Resins	-	-	0.92	Yes	X	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.

(\*) For a complete regulatory status and specific details, please contact your local Ampacet Sales Representative



## MASTERBATCH SOLUTIONS FOR BI-ORIENTED POLYETHYLENE FILMS



## BIAX4CE™ PORTFOLIO

The bi-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 conventional or dedicated bi-orientation lines, manufacturing BOPE films requires dedicated masterbatch portfolio as Ampacet BIAx4CE™.

Family	Name	Code	Carrier Resin	Active Agent	Additive Loading	Recommended 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.
Processing Aid	BIAX4CE™ PROFLOW 654	103654	LLDPE	Proprietary	Proprietary	1 - 2%	Skins	High heat stability processing aid masterbatch (max. 300°C extrusion temperature).
Matte	BIAX4CE™ MATIF 105	4000144-E	Proprietary	-	-	100%	Skin	Good matte properties and film homogeneity.
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.

# AMPACET



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