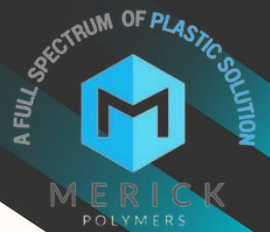


MERICK POLYMERS



ADDITIVE MASTERBATCH



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COMPANY PROFILE



*Continuous
improvement
and
maximum
customer
satisfaction.*

Merick Polymers Co., Ltd. is a manufacturer of Color Masterbatches, Pigments and Plastic Compounds for use in all types of plastic products. with modern production technology Committed to product research and development There is a team of personnel with direct expertise. and have selected quality raw materials It is also certified for quality systems according to ISO 9001:2015. In addition, the company also provides services for testing the properties of plastics according to ASTM, ISO, UL, IEC standards with certified testing equipment.



Merick Polymers Co., Ltd. recognizes the importance of economic development along with social development and environmental preservation in a "balanced" manner and has an efficient use of resources. in order to have the least impact on the environment under the policy "Green economy" and the BCG economic model, which is the distribution of income and opportunities to the "community" as well. and product development Biodegradable or biodegradable plastic packaging (Biodegradable, Bioplastic) to be part of a low carbon society (Low carbon society) with innovative nanotechnology. (Nanotechnology) under the principle of designing products that are friendly to the environment Ecodesign.



WHAT IS ADDITIVES MASTERBATCH ?

- UV-STABILIZERS
- ANTI - STATIC AGENTS
- SLIP AND ANTI-BLOCK AGENTS
- NUCLEATING AGENT
- ANTIOXIDANT
- POLYMER PROCESSING ADDITIVE
- LIGHT DIFFUSION
- OPTICAL BRIGHTENING AGENT
- SILICONE MASTERBATCH
- CLARIFYING MASTERBATCH
- CALCIUM MASTERBATCH



Additives Masterbatches: Adding Properties to the Plastic

Additives enhance the performance of plastic products. They add a variety of special properties in plastics, which drastically improve the quality, longevity, and resistance of the end product. Below are few examples to better understand Additive Masterbatches for the Plastic.

The market applications of Merick Polymers Additive Masterbatches provides global Additive service for the following industries:

- Automotive
- Agriculture
- Building & Construction
- Packaging
- Home, sport & leisure industry
- Textiles & Fiber industry
- Electric & Electronic industry



UV/LIGHT STABILIZERS

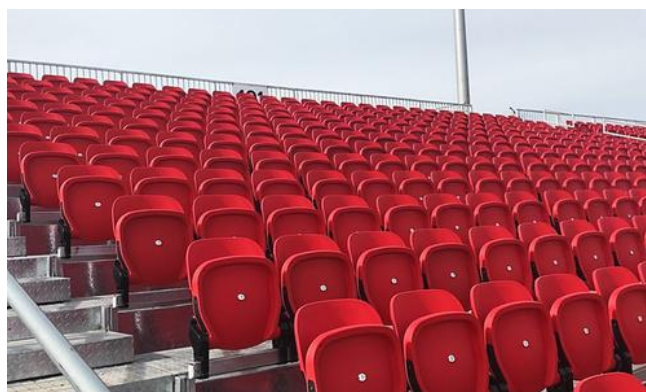


WHAT IS UV/LIGHT STABILIZERS

Hindered amine light stabilizers (HALS) protect polymers from degradation due to UV exposure by neutralizing them. HALS regenerate during neutralization and continue to provide protection throughout the life of the end product. They also act as primary antioxidants with low color generation.. UV absorbers (UVAs) provide protection by absorbing energy from UV radiation and, through a reversible chemical rearrangement, dissipate the energy as heat. HALS and UVAs can be used together to achieve optimum UV protection.

BENEFITS

- Long-term polymer protection.
- Absorption of harmful UV radiation.
- Innovative range of additives.
- Food-approved UV MB.
- Ongoing support on the production line to ensure optimal outcome.



Product Code	Active Content	%Add rate	Carrier	Main Applications
UV-MB-PE01	20%	1-3%	PE	This masterbatch suitable for injection and extrusion process such as sheet, blown film, blow molding, Filament, etc.
UV-MB-PE02	20%	2-3%	PE	This masterbatch suitable for injection and extrusion process such as sheet, blown film, blow molding, Filament, etc.
UV-MB-PE03	20%	2-3%	PE	This masterbatch suitable for injection and extrusion process such as sheet, blown film, blow molding, Filament, etc.
UV-MB-PE04	20%	2-3%	PE	This masterbatch suitable for injection and extrusion process such as sheet, blown film, blow molding, Filament, etc.

ANTI - STATIC AGENTS



WHAT IS ANTI - STATIC AGENTS ?

We use antistatic agent in our masterbatch to reduce or eliminate buildup of static electricity. The role of an antistatic agent is to make the surface or the plastic product itself slightly conductive, either by being conductive itself, or by absorbing moisture from the air.



BENEFITS

- Fire and explosion hazards
- Poor mold release
- Damage to electrical component
- Attraction of dust
- Ongoing support on the production line to ensure optimal outcome.

Product Code	Active Content	%Add rate	Carrier	Main Applications
AS-PE-001	20%	0.2-0.5%	PE	This masterbatch suitable for film, sheet, injection molded products, containers, and especially packaging materials, etc.
AS-PE-002	20%	2-4%	PE	This masterbatch suitable for film, sheet, injection molded products, containers, and especially packaging materials, etc.
AS-PP-001	20%	2-4%	PP	This masterbatch suitable for film, sheet, injection molded products, containers, and especially packaging materials, etc.
ASP-PE-001	20%	0.3-0.8%	PE	Antistatic masterbatch widely used to polyolefin plastics such as PE, PP containers, drums (bags, boxes), polypropylene spinning, non-woven fabrics.
ASP-PE-002	20%	0.3-0.8%	PE	Antistatic masterbatch widely used to injection molding and extrusion molding area of PP, PE, PS, HIPS and ABS.





WHAT IS SLIP AND ANTI-BLOCK AGENTS?

It is a substance that is added to prevent the adhesion of the film surface. make the work smooth and shiny And if put in recycled plastic, it will improve the quality of recycled plastic. The recommended dosage is about 2%-5%, suitable for mixing with LLDPE / LDPE, blowing through water and blowing up.

BENEFITS

- The film not stick together.
- To increase the roughness of the film surface. This makes the film easy to separate.



Product Code	Active Content	%Add rate	Carrier	Main Applications
AB-PE-001	20%	2-5%	PE	This masterbatch suitable for blown film, Cast Film, Extrusion, etc.
AB-PE-002	20%	2-5%	PE	This masterbatch suitable for blown film, Cast Film, Extrusion, etc.
AB-PET-001	20%	0.5-3.0%	PET	<ul style="list-style-type: none"> • Polyester base Sheet/Film packaging • Copolyester base Sheet/Film packaging • Outer Layer top coat reduce friction • Industrial packaging





WHAT IS NUCLEATING AGENT?

The substance has the ability to induce polymers to crystallize quickly. The obtained crystals are smaller than normal. and arrange the samples in an orderly manner, making the polymers more clear. have a better shape and better heat resistance.

BENEFITS

- Produces smaller Crystallites of similar size. It is also more dense.
- Make semi-crystalline plastics have better shape stability.
- The plastic parts shrink at each point that is close to each other.
- Reduce production cycle time.
- Improved mechanical properties and solvent resistance to plastics.



Product Code	Active Content	%Add rate	Carrier	Main Applications
NU-MB-PE01	-	3-8%	PE	<ul style="list-style-type: none"> • Consumer Packaging PE & PP base. • Industrial packaging • Display part • Container which intention to improve Stiffness, • Barrier properties.
NU-MB-PP01	5%	2-4%	PP	This masterbatch suitable for Injection, Blow film, Cast film, Blow molding, filament, etc.





WHAT IS ANTIOXIDANT ?

Our primary antioxidants, are highly effective, non-discoloring stabilizers for organic substrates that are prone to oxidation, e.g., plastics, synthetic fibers, elastomers and waxes. They act as free radical scavengers, and are primarily used to protect the finished product. Phosphite antioxidants, also known as secondary antioxidants, act as peroxide decomposers, protecting the polymer and ensuring color retention of oxidation-prone organic polymers, especially during processing.

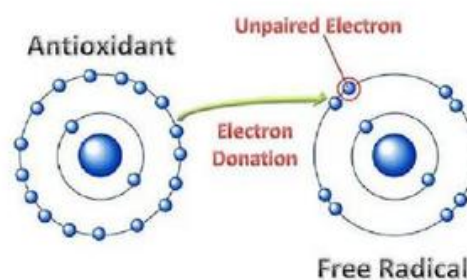
BENEFITS

- Prevent the product from yellowing in the production process.
- Extend the useful life of the product or the product does not deteriorate quickly.



with antioxidant without antioxidant

HOW ANTIOXIDANTS REDUCE FREE RADICALS



chemically reactive unpaired electron
+
electron donation :
stable electron pair is form,
free radical is nutralised

Product Code	Active Content	%Add rate	Carrier	Main Applications
AO-MB-PE01	10%	2-3%	PE	This masterbatch suitable for Pipes, Profiles, Films, Cables, Injection molding, Tapes, Geotextiles, Blow moldings. Plastic items made out of LLDPE, LDPE, MDPE, and HDPE.
AO-MB-PE02	20%	1.5-3%	PE	This masterbatch suitable for Pipes, Profiles, Films, Cables, Injection molding, Tapes, Geotextiles, Blow moldings. Plastic items made out of LLDPE, LDPE, MDPE, and HDPE.





WHAT IS PPA ?

It is a substance produced from Fluoropolymers. It is an additive for helping in plastic forming by Extrusion process. The PPA acts as a film coating on the surface of the die, to liquefy the plastic. Easily flows through dies or molds.

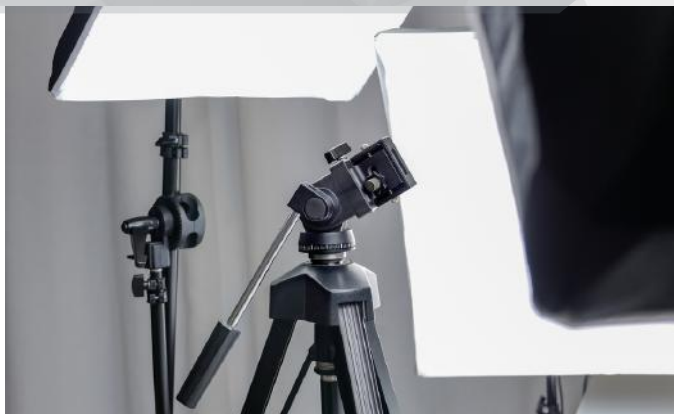
BENEFITS

- Reduce or eliminate shark skin problems in the bag/film production process.
- Improves the flow rate of the polymer.
- Reduce gel formation in the bag production process.
- Increase the transparency of the bag / film.
- Improves the gloss and smoothness of the surface of the work piece.



Product Code	Active Content	%Add rate	Carrier	Main Applications
PPA-MB-PE01	-	0.2-0.5%	PE	<ul style="list-style-type: none"> • Polyolefin's all extrusion & injection • Smoothly surface film/Sheet • Medium-Low COF • Film/Sheet/Injection part • Less blocking layer packaging
PPA-MB-PE02	-	2-3%	PE	This masterbatch suitable for Nonwovens and fibre, Injection, Blow film, Cast film, Blow molding and all other polyolefin extrusion process.
PPA-MB-PE03	-	2-3%	PE	This masterbatch suitable for Nonwovens and fibre, Injection, Blow film, Cast film, Blow molding and all other polyolefin extrusion process.





WHAT IS LIGHT DIFFUSION ?

It is a white silicone powder added to many modules which gives a detailed diffusion of the matrix that passes through it. This helps to stay within the refractive index of the light source. so in order to redirect of light in order to obtain the light that will bring about success.

BENEFITS

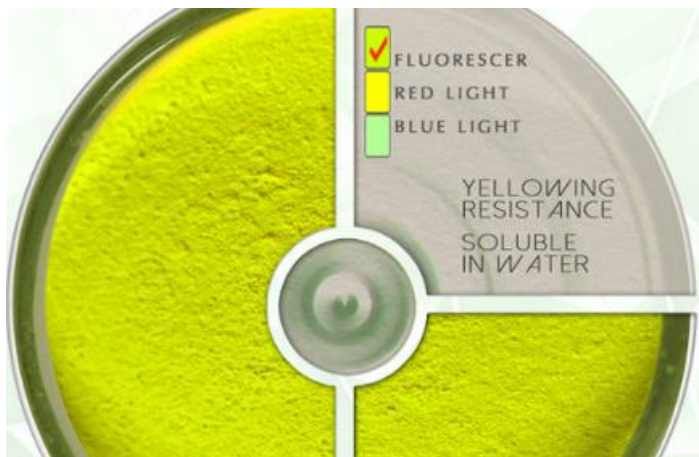
- High temperature resistance
- No yellowing (no yellowing)
- Homogeneous light distribution
- Good spot coverage
- Use a small quantity but high quality.
- Good compatibility with Resin



Product Code	Active Content	%Add rate	Carrier	Main Applications
LDF-MB-PP01	10%	0.5-2%	PE	This masterbatch suitable for injection and extrusion process such as luminous profiles, lamp covers, LED cover / LED lights, LCD displays, optical lenses etc.
LDF-MB-MA01	10%	0.5-2%	PMMA	This masterbatch suitable for injection and extrusion process such as light diffusion films & profiles luminous profiles, lamp covers, LED cover / LED lights, LCD displays, optical lenses etc.
LDF-MB-PC01	10%	0.5-2%	PC	This masterbatch suitable for injection and extrusion process such as luminous profiles, lamp covers, LED cover / LED lights, LCD displays, optical lenses etc.



OPTICAL BRIGHTENING AGENT



WHAT IS NUCLEATING AGENT?

It is a substance that adds brightness to the work piece. It absorbs light and emits blue light, especially with ultraviolet light. Compatible with Grade A and Grade B plastic resins, available in 2 shades, white and blue. in both powder and pill form.

BENEFITS

- Make the color of the white workpiece brighter.
- Masks the natural yellowing of plastic.
- Add whiteness to recycled plastic.



Product Code	Active Content	%Add rate	Carrier	Main Applications
OB-MB-PET01	5%	0.5-1.5%	PET	Suitable for Injection sheets, fibers, and PET etc.
OB-MB-GP01	5%	3%	GPPS	Suitable for the whitening of polyester fiber, nylon fiber and etc. Suitable for hard PVC, ABS, PS, polycarbonate etc.
OB-MB-PE01	10%	0.2-0.5%	PE	Suitable for films & sheets, fibers, molded thermoplastic, etc.
OB-MB-PE02	10%	0.2-0.5%	PE	Suitable for films & sheets, fibers, molded thermoplastic, etc.



SILICONE MASTERBATCH



WHAT IS SILICONE MASTERBATCH ?

A silicone masterbatch is a concentrated mixture of silicone elastomer dispersed in a carrier resin. It is used in various industries, including plastics, to impart specific properties such as heat resistance, electrical insulation, and flexibility to the final product. Masterbatches are easier to handle and incorporate into manufacturing processes compared to raw silicone, making them convenient for enhancing the properties of plastics and other materials.

BENEFITS

- Ease of Handling
- Improved Properties
- Uniform Distribution
- Cost Efficiency
- Customization



Product Code

SC-MB-PE01

Active Content

5%

%Add rate

0.5 - 5%

Carrier

LDPE

Main Applications

Suitable for thermoplastics.

CLARIFYING MASTERBATCH



WHAT IS CLARIFYING MASTERBATCH ?

A clarifying masterbatch is a specialized additive used in plastics processing to improve the optical clarity of polymers. It is typically added to thermoplastic resins such as polypropylene (PP) or polyethylene (PE) to reduce haze and enhance transparency in the final product.

BENEFITS

- Improved Optical Clarity
- Enhanced Aesthetic Appeal
- Maintained Mechanical Properties
- Cost Efficiency
- Processing Ease
- Versatility



Product Code	Active Content	%Add rate	Carrier	Main Applications
CLA-MB-001	-	0.5 - 1.5%	PE	Suitable for transparency and appearance of polypropylene injection molding article, sheet and film products.

CALCIUM MASTERBATCH



WHAT IS CALCIUM MASTERBATCH ?

A calcium masterbatch is a concentrated mixture used in plastics processing, typically containing a high proportion of calcium carbonate dispersed in a polymer carrier. It's added to plastics during manufacturing to enhance various properties such as stiffness, impact resistance, and sometimes to reduce costs by replacing a portion of more expensive polymer resin with calcium carbonate filler. This masterbatch form simplifies the handling and distribution of calcium carbonate in plastic manufacturing processes.

BENEFITS

- Cost-Effectiveness
- Improved Mechanical Properties
- Reduced Environmental Impact
- Processing Advantages
- Versatility
- Consistency



Product Code	Active Content	%Add rate	Carrier	Main Applications
CA-MB-PE01	85	5 - 20 %	PE	Calcium carbonate PE01 is an economic grade calcium masterbatch with effective cost saving.
CA-MB-PP01	85	5 - 25 %	PP	CA-MB-PP01 is high performance calcium carbonate masterbatch with excellent whiteness. It is specialty designed for PP injection molding with exceptional stiffness for increased productivity and profitability.

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