### **Antifog Masterbatch**

### Description

OThis Antifog MB contains additive that incorporates migrate to the surface of plastic film and prevents the formation of water droplets inside the plastic film.

It is commonly used in agricultural and food packaging application.

In both above cases this Antifog MB gives best results.



### **Application**

- □ Agricultural Films
- □Food Packaging Application

### **Dosage**

☐ It is depend on end application. (Generally 2-4 %)

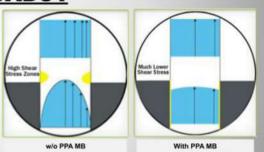
- ☐ Its allows perfect transparency of food packaging.
- $\hfill \square$  Its improves visual attractiveness of content.
- □Food quality does not deteriorate for longer time.
- ☐Useful in eliminating Hot and Cold fog formation.
- Improves the light transmission in agriculture film resulting in higher plant growth.
- ☐Reduces the burning of plants and crop spoilage.

### Polymer Processing Aid (PPA) MB PPA M20AD31

### **Description**

☐ It is a fluoro polymer based Polymer Processing Aid MB, to Improve Processing of LLDPE and HDPE film applications.

☐ Raw material migrate to the surface and creates thin layer on the extruder walls. The polymer slips in the extruder, at uniform speed.



### Application

- ☐ Blown Film & Cast Film.
- Wire And Cable Insulation.
- Extrusion Blow Molding.
- ☐ Pipes & Tubing.
- ☐ Agricultural Net Sacks, Fishing Nets And Ropes.

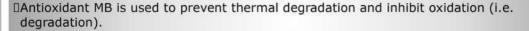
#### Dosage

☐It is depend on end application.(Generally 2-4 %)

- ☐ Reducing preventive cleaning maintenance shutdowns.
- Increasing the production output.
- ☐ Favor polymer slip and clearly reduce the melt fracture.
- Gel formation is reduce and eliminates die build up.

### **Anti-oxidant MB M20A051**

### **Description**



- Oxidation can cause loss of impact strength, elongation, surface cracks and discoloration.
- ☐ This Anti-oxidant MB helps to prevent thermal oxidation reactions when plastics are processed at high temperatures.

### **Application**

- Used in Molding Applications and Extrusion Applications.
  - <u>Dosage</u>
- $\hfill \square$  It depends on process and application . (generally 1-2 %)

- $\hfill \square$  Prevents Loss of strength, stiffness of flexibility
- □ Prevents Discoloration
- Prevents Scratching and loss of gloss

### **Antimicrobial MB**

### Description

- Antimicrobial MB Deals effectively with harmful microbes to prevent infection and disease.
- Antimicrobial MB Helps to prevent deterioration of plastic materials where part of the material might be susceptible to microbiological attack.
- Such attacks can cause staining, discoloration, odor and loss of aesthetics but more importantly, loss of electrical insulating properties, hygiene and overall loss of mechanical properties in the material.



### Application

### ☐ Used in inner liners of household appliances ☐ Imparts bacterial & fungal-controlling (Refrigerator & Refrigerator Gaskets, Microwaves, Washing Machines, Air Conditioners Etc), In Toilet Effective at low addition levels (but less Seats, Car Interiors & Molded Furniture, Toothbrushes (Body And Bristles), Fruit Bags And Garbage Bags Etc.

### Dosage

It depends on process and application (Generally 1-3%)

- properties on the surface of polymers.
- effective than Anti-microbial/Anti-fungal-(S) Additive.
- Human safe, Ecologically safe.
- □ Compatible with respective polymers.
- (PP, LDPE, HDPE, ABS, SAN, PC).
- □ RoHS compliant

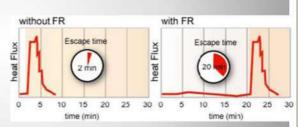
### **Flame Retardant MB**

### Description

☐Most thermoplastics are flammable, burning easily when heated to a high enough temperature.

Flame retardants MB is added to polyolefins, polycarbonate, polyamides, polyester, and other polymers to increase resistance to ignition, reduce flame spread, suppress smoke formation, and prevent a polymer from dripping.

The primary goal is to delay the ignition and burning of materials, allowing people more time to escape the affected area. A secondary consideration is to limit property damage.



### **Application**

Plastics containing flame retardants are found in homes, office buildings, cars and mass-transit vehicles, furnishings, fibers, household appliances, and many other applications.

### Key features

- ☐ Slow down polymer combustion and degradation (fire extinction)
- ☐Reduce smoke emission
- □Avoid dripping

### Dosage

It depends on process and application

### **Merpro TM**

### -Taking Care of Product, People and Plant

### Description

Merpro TM is a tensile modifier specially designs to improve tensile strength in film and woven sack application. It has excellent elastomeric properties so it is easy to process and compatible with polyolefin materials.



### **Application**

☐ It is suitable for Blown film extrusion, Woven-sack, Non woven fabric.

### Dosage

□ Recommended dosage is 3 to 4%.

### **Key Features**

□Reduces tape brakeage in woven sack application.

□Cheaper than polymer

Improved tensile and elongation properties.

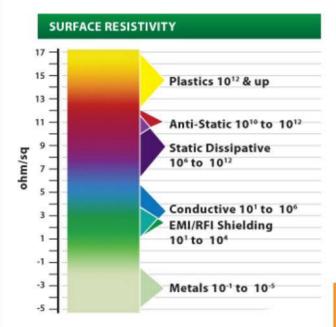
Excellent adhesion to conventional PP and PE.

□RoHS Compliant.

□Easy process-ability.



### ANTISTATIC ADDITIVE MASTERBATCHES





Polyethylene film without antistatic additive



Polyethylene film with inclusion of antistatic additive

### Description:

- Our Antistatic additive Masterbatch prevents the buildup of static electric charge which is created during plastic processing.
- ♦ Surface resistivity between the range  $10^9 10^{12}$  Ohms is considered as antistatic and our additive helps to achieve this range.
- ◆ Typically PE and PP has surface resistivity in the range of 10<sup>13</sup> to 10<sup>16</sup> Ohms.

### Application:

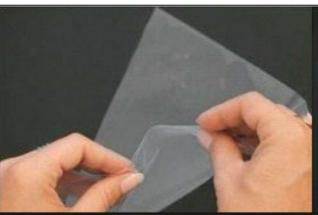
- ♦ Electrical Applications
- Blown Films

### **Key Features**

- Reduces dust accumulation that affects performance and appearance of plastic products
- Improves handling during transportation, packaging and storage



# SLIP ADDITIVE MASTERBATCHES



Without Slip additive



After Adding Slip additive

### Description:

- This amide based additive Masterbatch fast blooms on the film surface to impart slip properties and reduces coefficient of friction.
- Reduces surface friction between two polymer surfaces or between the polymer surface and processing equipment.
- Slip MB is added directly into the polymer during the extrusion process.

### Application:

- ♦ Blown Film
- ♦ Pipes & Tubing.
- Molding Application.

### **Key Features**

- ◆ Reduces the coefficient of friction While maintaining optical properties such as transparency and clarity
- Improves wrapping and handling characteristics

### Merit Polymers Pvt. Ltd.

# UV Stabilizer Additive MERITI Masterbatches



### Description:

- ◆ Exposure to sunlight, and in some cases, even light from artificial sources can have adverse effects on the usefulness of PP & PE products or packaging contents.
- UV radiation can break down the chemical bonds in a polymer as well as have adverse effects on packaged food, beverages, pharmaceuticals, and non-perishables.
- This process called photo-degradation will ultimately cause cracking, chalking, and the loss of physical properties.
- HALS (Hindered Amine Light Stabilizers) are the most effective UV stabilizers for polyolefin.

### Application:

- ♦ Agricultural Films
- ◆ PP Films, Tapes/Fabrics
- ♦ Injection Moulding
- ◆ Packaging Films
- ♦ Extrusion
- Blow Moulding
- ♦ Roto Moulding

### Merit Polymers Pvt. Ltd.

### intion :

- Prevents Discolouration
- Prevents Cracking
- ◆ Prevents Loss Of Physical and Mechanical Properties

**Key Features** 

- Prevents deterioration in optical properties
- ◆ Food grade and non food grade available



# Merpro MR

Say No To Silicon Spray !!!



### Description:

 Merpro MR is highly effective Mould Release additive masterbatch which reduces the friction between plastic and metal surface and prevents unwanted adhesion hence moulded article will release easily from the mould.

### Applications:

 It is highly recommended for Injection and Blow moulding applications.

- Product will not stick to the mould so no spray required
- Nonstop machine operation and thus more productivity
- ♦ No spray mark rejection
- ◆ Shining on the products observed due to glass finish on the product
- It reduces the friction while maintaining optical properties such as transparency and clarity

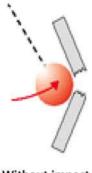
Merit Polymers Pvt. Ltd.



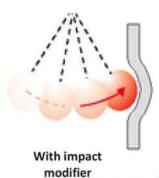
## Merpro IM

Enhancing strength









### Description:

- MERPRO IM is propylene based impact modifier. It has excellent elastomeric properties.
- MERPRO IM increases the durability of moulded or extruded plastics, especially those that needs to be constantly subjected to impact forces.
- MERPRO IM enables plastic products to absorb shocks and resist impact without cracking.

### Application:

Blow Moulding, Injection Moulding and Sheet Extrusion.

### **Key Features**

- ◆ Suitable for polyolefin processing
- Excellent adhesion to conventional PP and PE
- ♦ Very good elasticity and toughness
- ◆ Excellent for Thermoplastic where a perfect balance of flexibility, Stiffness and impact properties is Achieved
- ◆ RoHS compliant

#### Merit Polymers Pvt. Ltd.



### ANTI BLOCK ADDITIVE MASTERBATCH



Without Anti Block Additive



After Adding Anti Block additive

### Description:

- Antiblock additives are used in plastic film manufacturing to prevent adjacent layers from sticking together.
- It works by reducing the surface contact between film layers by creating microscopic bumps on the film surface, in turn reducing coefficient of friction.

### **Key features:**

- Prevention of film blocking during and after processing.
- Optimises production process and performance.
- Provides great dispersion and optical properties.
- Does not impact mechanical properties, Transparency, Colour and Gloss of the film.

### **Application:**

- Agriculture sector Mulch film, shade and mesh net, greenhouse film
- Packaging Sector
- Building and Construction sector
   Construction film Pines
  - Construction film, Pipes

Merit Polymers Pvt. Ltd.