



# MASTERBATCHES FOR BOPP FILMS

**Largest Manufacturer & Exporter of Colour and Additive Plastics Masterbatches in India.**

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**Place : BOPP INDIA CONFERENCE.**



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- Plastiblends India Ltd.
- BOPP Sector – Technical Trends.
- BOPP Sector – Technical Demands.
- Role Of Additives.
- Masterbatches.
- Innovation Tools.
- New Applications.

# Plastiblends at a Glance





# Plastiblends at a Glance

PLASTIBLENDS INDIA LTD.  
ROORKEE PLANT





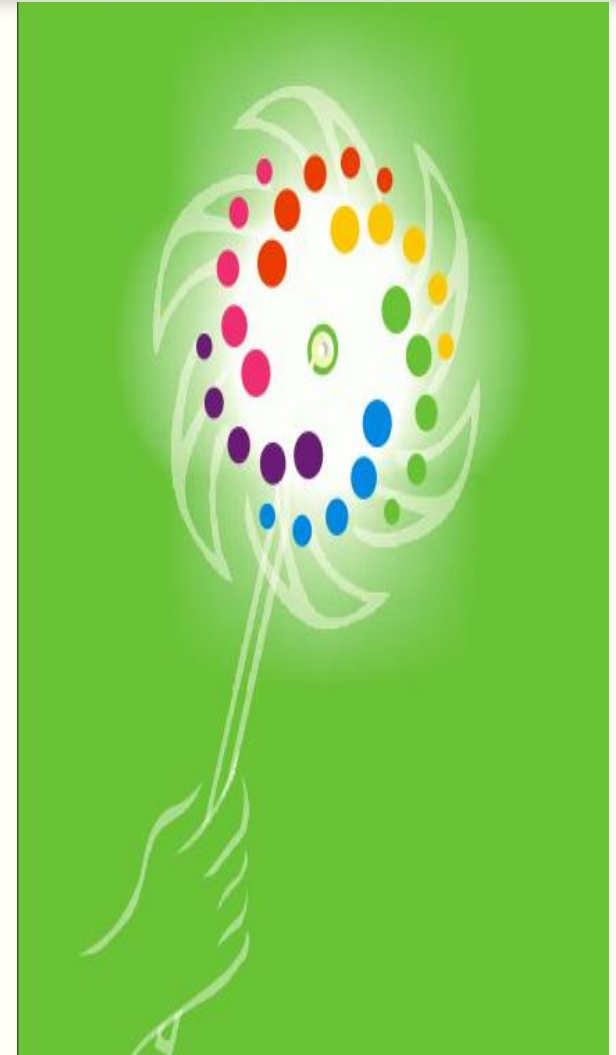
# Plastiblends at a Glance

- India's largest manufacturer and exporter of Masterbatches and additive compounds for the plastic processing industry.
- A total manufacturing capacity of over 50,000 TPA.
- First Indian MB manufacturer with ISO 9001-2008 certification.
- ISO 9001 : 2008 Certification by TUV SUD AMERICA INC. for adhering to stringent quality standards.
- First Indian MB manufacturer to go public with listing on leading stock exchanges of India
- Large investments in innovative technology and R&D. Approved by DSIR ( Department Of Science & Technology ,GOI).
- Export House status.

# Plastiblends at a Glance

## The Production Lines include

- Fast, high capacity Continuous Mixer (LCM) lines
- Twin Screw Extruders Lines
- Specifically designed high speed mixers
- high end computerized gravimetric feeding systems
- sophisticated, fully computerized process control systems
- which ensures consistent product quality, and improved productivity, enabling faster delivery to customers



# Research & Development



Well equipped R&D Centre

Specialized polymer technologists help to deliver customized tailor made solutions.

Technological support to our customers.



# BOPP Film

## Technical Trends - Equipments

- WIDER LINES – 8 Meters & Beyond
- FASTER LINES – 500 Meters & Beyond.



# BOPP Film

## Technical Trends - Materials

- High purity.
- Tailor made crystallinity with support from process & catalyst chemistry.
- Wider variety and more sophisticated Master batches.

# BOPP Film

## Demand from BOPP Processor.

- Continuous running at high Speed.
- High Filter Life.
- Maximum One Break per day.
- Capability to produce lower thickness film.

# BOPP Film

## Market Demands- Technical.

- Good Opticals - ( High Gloss & Low Haze).
- Good Mechanicals – Stiffness.
- Low Shrinkage.
- Retention of surface treatment.
- Low ash content in capacitor films.
- Ease of Metallization & Crack Resistance.
- Meeting Targets Of MVTR & OTR.
- Low SIT for sealing & Sealing strength.



# BOPP Films

## Role Of Additives.

Additives as a Miracle Workers.

- Innovation Tool.
- Properties On Demand.
- Process Corrections.

# Business Of WHITE MBs – PBI Grades-

Sr. NO	White PBI Grades	TiO2 %	Application/ Description
1	SPL. White(PP) 01	50 %	BOPP/ CAST films Applications.
2	WHITE (BOPP) 15 & 18	60 %	Giving very good Opacity, Dispersion & Gloss.
3	WHITE (BOPP) 15S & 18 S	60 % (e)	Addition Level is 5 % – 15 % normally.
4	WHITE (BOPP) 20	70 %	

# Business Of Pearlescent MBs -PBI Grades-

SR.NO	PEARLSCENT Grades	Applications /Description
1	D50/ 10/95	Gives a Pearlescent effect in BOPP Films
2	D50/10/95A	Gives a Pearlescent effect in BOPP Films

# Business Of Additives MBs-PBI Grades-

Sr. No	Additive MB	Plastiblend's Grade.
1	ANTIBLOCK MB	ANTIBLOCK AB051CP
2	ANTIBLOCK MB	ANTIBLOCK AB06CP
3	SLIP (BOPP) MB	SLIP (BOPP) MB 04
4	ANTISTATIC (BOPP) MB	ANTISTATIC (BOPP) MB 04
5	ANTIOXIDANT MB	ANTIOXIDANT(BOPP) MB 07
6	HIGH GLOSS CPMPOUND	HIGH GLOSS (BOPP) HG-01
7	MATT FINISH MB (BOPP)	D50/10/301
8	STIFFNER	STIFFNER CF01



# Additive MBs

- Processing Aid MBs.
- Antifog MBs.
- UV MBs.
- Performance MBs.



# BOPP FILM MANUFACTURE

- **Crystallinity of Polymers & Morphology Development.**

- Cast film.
- MDO Stretching.
- TDO Stretching.

Crystallinity increases from cast film to final film.

Size of crystallites matters.

- Good Opticals
- Lesser breaks.



# Crystalline Morphology

- Casting stage decides further structure development.
- Morphology developed depends on rate of crystallization which has origin in the resin coming from Polymer (PP) producers.
- Casting stage decides / dictates film properties.
- Different process technologies and catalyst technologies have different molecular weight, molecular weight distribution, isotacticity and ethylene content.
- Additive as a Miracle worker.



# Role of Additives MB Manufacturer

- MB with good distribution which can get dispersed on single or twin extruder of BOPP film.
- Additives to Increase or decrease crystallinity to improve.
  - A) Runnability
  - B) Improve Optical.
- Properties on demand / Process Correction.



# Additives & Additives MBs Innovation Tool

Future


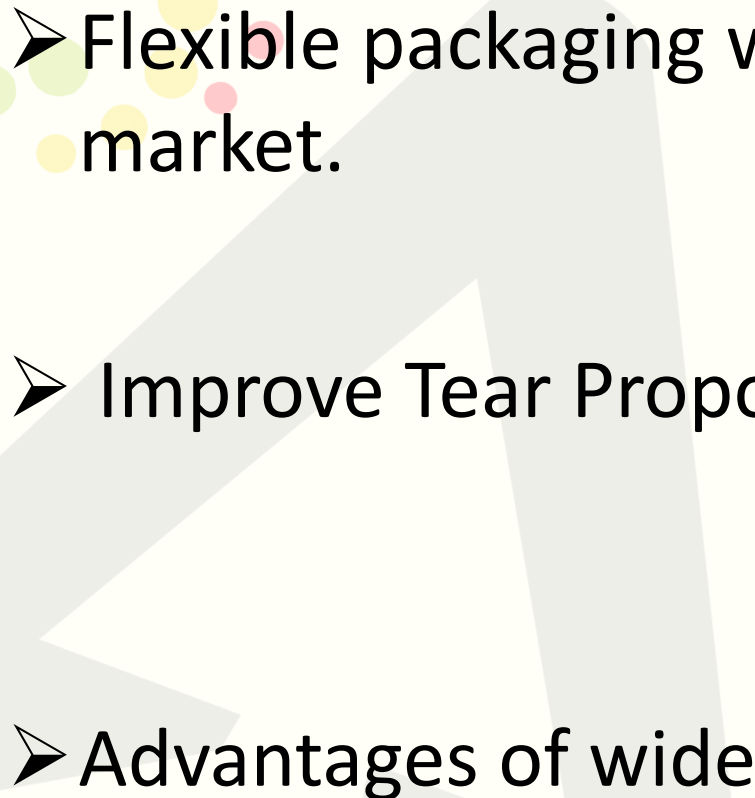
Nano Additives

Transparency with Tailormade properties.



# BOPP FILMS

## NEW APPLICATION FOR INDIA

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- Flexible packaging will always be prime market.
  - Improve Tear Propagation.
  - Advantages of wide width.



# Forward Path

- BOPP film properties, output of BOPP film plants are also related to additives.
- Partnership between BOPP manufacturer & Additive MB Manufacturer is the key to sustain a grow with end user industry.



**THANK YOU**