Masterbatches are solid or liquid additives for plastic, used for imparting other properties to plastics. They are concentrated mixtures, which are added to base materials in processing. For good mixing during processing, masterbatch is composed from the desired additive and the host resin. Concentration of the additive in masterbatches is much higher than in the end product, so only a small amount of masterbatch is used during processing.
Advantages of Our Proprietary Technologies

**LOW CONTENT OF UNREACTED MONOMERS** (“CLEAN POLYMERIZATION”)

**LOW CONTENT OF VOC** (VOLATILE ORGANIC COMPOUNDS)

**PRODUCT CUSTOMIZATION** CAN BE PROVIDED
**PRODUCT INFORMATION**

**GRAFTALEN™ MB-HMSPP 01210** - is used to make:

- Polypropylene processing easier, by increasing melt strength and stability at lower shear stresses.

**Special Features and Benefits**

- Is processable on most thermoplastics processing equipment
- Is a concentrate that needs to be added to any standard PP type in the extruding process

**Processing**

- Sheet extrusion thermoforming, blow molding, extrusion coating, fiber/film extrusion, injection moulding.
- Foaming applications

**HMSPP** (high melt strength polypropylene), characterized by a small content of long-chain branches and high polydispersity;

Due to its inherent nature, polypropylene lacks melt strength. HMSPP contains long chain branches and consequently exhibits significantly high melt strength.

These HMSPP grades offer unique balance of process-ability and high melt elasticity.

The increase of the molecular weight causes the decrease of the index of fluidity. The ramification formation of long chain doesn’t alter the fluidity index and also improves the extensibility.

Our methods of producing MB-HMSPP (a master batch for enhancing the melt strength of conventional polypropylene resins) promote long chain branching without sacrificing the thermoplastic character.
APPLICATIONS & BENEFITS

Thermoforming and general extrusion

- Reduced “Sag” of the plate or the warm film.
- Wide Window processing.
- Fast processing cycles
- Final product with regular thickness distribution

Direct coatings extrusion

- Avoid the lamination process
- Promote the coating thickness reduction
- Reduce costs by process simplification
- Coating speeds from 2 to 3 larger times with a formation of neck very smaller, about 4 to 7 times lesser, without occurrence of the wiredrawing resonance. Coating thickness of up to 5 µm can be obtained easily. Processing speeds of 300m/min were reached with softness and better adhesion gotten

Blow molding

- Good resistance to the impact (fall of the flasks).
- Shine and transparency
- PP => 600 to 800 Kg/m³ x HMSPP => 30 to 50 Kg/m³
- Very light trays for packaging in general
**PRODUCT INFORMATION**

**GRAFTALEN™ PP-FER 00730** is a polymeric additive for polypropylene, designed to increase melt flow of polypropylene and polypropylene compounds.

**GRAFTALEN™**  
**EB-PER 00730**

**Special Features and Benefits**
- Make PP flow more easily
- Increase MFI of existing PP and PP compounds
- Thin wall injection molding

**Processing**
- Processable on most thermoplastics processing equipment.

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**MFI Increase**

- **Flow Enhancer Added [%]**
- **MFI [g/10 min]**

- 0.73, 6.2, 13.3, 27.6, 38.7, 57
GRAFTALEN™ SA

*GRAFTALEN™ SA* is an additive for polymers, used for regulating rheological properties and as release agent for injection molding.

**Special Features and Benefits**

- GRAFTALEN™ SA functions as rheology modifier to increase material’s Melt Flow Index,
- Release agent, for easier demolding of injection molded parts.

**Processing**

- Should be added to base materials in quantities, from 0.1% to 10%, during processing.

![MFI Increase with GRAFTALEN SA](image-url)
GENERAL INFORMATION

This product is a copolymer of ethylene and maleic anhydride with 80% of maleic anhydride by weight in ethylene-butyl acrylate carrier resin. Due to its high number of reactive anhydride groups, it has excellent interactions with polar functional groups. *GRAFTALEN™ MB-EMAH 00720* is primarily designed for increasing mechanical and melt-flow properties in engineering plastics.

PRODUCT INFORMATION

*GRAFTALEN™ MB-EMAH 00720* - is a great compatibilizer for polyamides and polyamide compounds. Increases mechanical properties of base material (Impact Strength, Flexural Properties). Improved wear resistance and melt strength.

**Processing**

- Is processable on most thermoplastics processing equipment,
- Works best when polyolefin and calcium carbonate content is lower than 5%, and TiO2 content is lower than 0.5%.
GRAFTALEN™

MB-EGMA 00615

Polyethylene Based Masterbatch with Glycidyl Methacrylate

PRODUCT INFORMATION

GRAFTABOND™ MB-EGMA is a high performance glycidyl methacrylate masterbatch based on ethylene copolymer.

The high GMA content allows this material to perform as a chain extender and compatibilizer for polyesters and polyester compounds.

PRODUCT INFORMATION

GRAFTALEN™ MB-EMAH 00720 can be used in the following applications:

- Standard toughening agent (golf balls, cable compounds...),
- Chain extender for polyesters and polyester compounds,
- Compatibilizer for polyesters and polyester compounds.
CONTACTS

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