

CHEMICAL INNOVADION





We are more than a polymer manufacturer. By combining advanced German technology and Omani-sourced materials, we create polymer solutions for industries like automotive, construction, agriculture, and healthcare.

#### **Our product range includes:**

- ▼ Thermoplastic Elastomers (TPEs): TPE-o, TPE-s, TPE-v, TPE-u
- **Solution** Engineering Compounds
- Additive and Black Masterbatches

Our advanced manufacturing and rigorous quality checks ensure top performance for every product by tailor made formulation based on your request.

Let's collaborate to create smarter solutions and build a sustainable future.



# MAKBLACK (Black Masterbatch)



#### **Description**

MAKBLACK products are high-quality black masterbatches designed for the coloration of polyolefinic resins such as HDPE, LDPE, LLDPE, PP, and PS. These masterbatches offer excellent carbon black dispersion, ensuring a consistent and uniform color without issues of dirt or dust contamination.

### **Application**

MAKBLACK masterbatches are easily dispersible, making them ideal for direct addition during the manufacturing of various products including shopping bags, garbage bags, mulch films, polybags, woven bags, pipes, pressure pipes, bottles, housewares, household utensils, electrical and electronic components, and automotive parts. They offer an optimal balance of opacity and jetness, while also providing UV protection to enhance the durability of thermoplastic polymers.

### **Packaging**

MAKBLACK is available in pellet form, packaged in 25 kg PE bags. To ensure quality, store in a cool, dry place to prevent moisture absorption. We recommend that users evaluate the suitability of our materials for their specific applications before large-scale commercial use.



**MAKRUB** is an advanced thermoplastic rubber compound formulated from SBS (Styrene-Butadiene-Styrene) and SEBS (Styrene-Ethylene-Butylene-Styrene) block copolymers. It is engineered for use in both molded and extruded products utilizing standard thermoplastic processing equipment. This compound combines the benefits of rubber with the versatility of thermoplastics, offering:

- Low Thermal Shrinkage: Ranges between 0.4% and 1%.
- Lightweight: Reduces the overall weight of the end products.
- Resistance to Decomposition: Ensures longevity and durability.
- Reprocessable: Scraps and rejects can be reprocessed without compromising the properties of the final products, unlike natural rubber which requires vulcanization.

### **Application**

**MAKRUB** is particularly suited for applications such as:

- Footwear (including outer soles, midsoles, and insoles)
- Replacements for vulcanized rubber in various applications where extreme temperature and high chemical resistance are not critical.

### **Packaging**

**MAKRUB** is supplied in pellet form, packaged in 25 kg polyethylene (PE) bags enclosed in polypropylene (PP) woven laminated paper for enhanced protection and cleanliness. To maintain optimal quality, store in a cool, dry environment to prevent moisture absorption. Note: We recommend assessing the suitability of MAKRUB for specific applications prior to large-scale adoption to ensure it meets your production requirements.





# MAKCAC (Calcium Carbonate Compound)

#### **Description**

**MAKCAC** is a premium-grade calcium carbonate compound with fine particle size, specifically engineered for a diverse range of thermoplastic applications. By incorporating MAKCAC, manufacturers can achieve significant cost reductions through lower raw material expenses and improved process efficiency. This compound is formulated to enhance various properties of thermoplastics, offering the following benefits:

- Increased Stiffness: Provides enhanced rigidity and structural strength.
- Reduced Shrinkage: Minimizes dimensional changes during cooling.
- Maintained Impact Strength: Preserves impact resistance even with reduced material thickness.

### **Application**

**MAKCAC** is ideal for a variety of products, including:

- Sheets
- Shopping bags
- Woven bags
- Jumbo bags
- General packaging
- Houseware

### **Packaging**

**MAKCAC** is supplied in pellet form, packed in 25 kg polyethylene (PE) bags enclosed in polypropylene (PP) woven laminated paper for added protection and cleanliness in the production process. For optimal performance, store in a cool, dry environment to prevent moisture absorption.



**MAKTALC** is an advanced talc-filled polypropylene (PP) compound that offers a cost-effective alternative to traditional engineering plastics, while maintaining comparable mechanical and thermal properties. This compound features extremely fine talc particles with a high aspect ratio, enhancing its reinforcing capabilities. Select grades of MAKTAL are enhanced with light stabilizers to provide superior resistance against UV radiation, making them ideal for outdoor applications.

Key Benefits of MAKTALC:

- Enhanced Rigidity: Superior flexural modulus ensures increased stiffness and structural integrity.
- Improved Thermal Stability: Elevated heat deflection temperature (HDT) ensures outstanding dimensional stability even at elevated temperatures.

### **Application**

**MAKTALC** is versatile and suitable for a wide range of applications including:

- Household appliances
- Garden furniture
- Sheets
- Bottle crates
- Industrial tools
- Electronic components
- Automotive parts

### **Packaging**

**MAKTALC** is available in pellet form, packed in 25 kg polyethylene (PE) bags enclosed in polypropylene (PP) woven laminated paper for additional protection. To maintain optimal quality, store in a cool, dry place to prevent moisture absorption.



# MAKNOX (Antioxidant Masterbatch)

## **Description**

MAKNOX is a specialized antioxidant masterbatch designed to address thermal degradation issues that can arise during polymer processing or throughout the lifecycle of the finished products. Such degradation can manifest as changes in the polymer melt flow index, development of odors, brittleness, and yellowing. MAKNOX masterbatches incorporate both primary and secondary antioxidants, functioning as heat stabilizers to effectively prevent these issues.

### **Application**

MAKNOX is formulated to ensure efficient and uniform dispersion in the raw material mixture during processing. It is supplied in pellet form to facilitate effective integration into the polymer blend.

## **Packaging**

MAKNOX is packaged in 25 kg polyethylene (PE) bags, enclosed in polypropylene (PP) woven laminated paper for added protection. Store in a cool, dry environment to avoid moisture absorption.



(Polymer Processing Additive Masterbatch)

#### **Description**

MAKPPA masterbatches are formulated with a fluoro polymer that exhibits a strong affinity for metal surfaces. This additive forms a coating on the extruder screw, barrel, and die, reducing resistance and facilitating smoother polymer melt flow. The benefits of using MAKPPA include:

- Increased throughput
- Elimination of shark skin defects
- Reduction in back pressure
- Decreased die build-up
- Lower power consumption

### **Application**

**MAKPPA** is suitable for a wide range of applications, including blow film, fiber production, profile extrusion, pipe/tubing, and cabling processes. It is compatible with various polymers such as LDPE, LLDPE, HDPE, and PP. For initial use, a dosage of 2-5% based on the formulation is recommended to achieve the desired surface coating. After 15-20 minutes, depending on factors like equipment condition and resin rheology, a reduced dosage of 0.5-2% is generally sufficient. MAKPPA is FDA-approved for use in food contact applications.

### **Packaging**

MAKPPA is supplied in pellet form, packed in 25 kg PE bags with an outer layer of PP woven laminated paper. Store in a cool, dry place to prevent moisture absorption.



Many plastics naturally accumulate static charges, which attract dust and particles to their surfaces, potentially reducing the efficiency of film manufacturing and packaging processes. **MAKSTAT** masterbatches address these issues with antistatic agents that utilize a migratory additive mechanism to provide effective and long-term antistatic properties, even in varying atmospheric humidity conditions.

### **Application**

**MAKSTAT** is supplied in pellet form, ensuring uniform distribution within the raw material mixture during processing. It is suitable for a range of products, including plastic films, woven bags, bottles, pails, housewares, containers (especially cosmetic containers), and more. MAKSTAT conforms to FDA regulations for use in food contact applications.

### **Packaging**

**MAKSTAT** is available in pellet form, packaged in 25 kg PE bags with an outer layer of PP woven laminated paper. Store in a cool, dry place to prevent moisture absorption.



**MAKBLOCK** masterbatches serve two primary functions: they prevent the inner surfaces of bags from sticking together, ensuring easy opening, and create a microscopic roughness on the outer surfaces of bags to prevent collapsing in stacked formations. Additionally, in film and sheet applications, **MAKBLOCK** enhances the winding and unwinding processes of rolls, and in thermoforming applications, it aids in the efficient denesting of thermoformed articles.

## **Application**

**MAKBLOCK** is suitable for a variety of products, including shopping bags, woven bags, plastic packaging, and plastic rolls. It is supplied in pellet form to ensure effective and uniform distribution within the raw material mixture during processing.

### **Packaging**

**MAKBLOCK** is packaged in 25 kg PE bags with an outer layer of PP woven laminated paper. Store in a cool, dry place to prevent moisture absorption.



**MAKSLIP** masterbatch is designed to reduce the coefficient of friction (CoF) in polyolefin film applications. This slip agent facilitates easy opening of plastic bags and streamlines the filling process of powdery products. Additionally, in molding applications, MAKSLIP can be utilized to achieve controlled torque release properties for screw caps and closures.

### **Application**

**MAKSLIP** is supplied in pellet form to ensure effective and uniform distribution within the raw material mixture during processing. It is suitable for a range of products, including plastic films, woven bags, and caps and closures for packaging.

### **Packaging**

**MAKSLIP** is packaged in 25 kg PE bags with an outer layer of PP woven laminated paper. It conforms to FDA regulations for use in food contact applications. Store in a cool, dry place to prevent moisture absorption.



Roto-lining, or Polymer Lining, represents a top-tier corrosion protection technology, offering exceptional defense against a variety of aggressive substances such as crude oil, saline water, wastewater, and highly corrosive chemicals including acids, alkalis, oxidizers, solvents, and salts. This technology can be applied to carbon steel pipes, spools, flowlines, fittings, vessels, and various process equipment by forming a protective internal polymer coating or lining with a thickness ranging from 2 to 11 mm, enhanced with corrosion-resistant additives. This results in fewer breakdowns, reduced maintenance costs, and significantly longer, more reliable uptime compared to other corrosion protection methods.

### **Application**

- Oil & Gas
- Marine & Shipbuilding
- Chemicals & Petrochemicals
- Fertilizers
- Power & Desalination Plants
- Sewage Treatment Plants

### **Packaging**

**MAKRTL** is packaged in 25 kg PE bags with an outer layer of PP woven laminated paper. It conforms to FDA regulations for use in food contact applications. Store in a cool, dry place to prevent moisture absorption.



MAKPS (High-Quality Polystyrene compounds)



#### **Description**

MAKPS compounds is a premium-grade General Purpose Polystyrene (GPPS) designed for versatile applications. Known for its excellent clarity, ease of processing, and reliable performance, MAKPS is suitable for a wide range of uses. In addition to MAKPS, we also offer specialized production of Expandable Polystyrene (EPS) and Extruded Polystyrene (XPS), allowing us to meet diverse customer needs across various industries.

#### **Application**

#### ➤ MAKGPPS:

- Packaging: Transparent containers, blister packs, and food packaging.
- Household Goods: Disposable cutlery, cups, and other consumer products.
- Electrical & Electronics: Housings for small appliances, light diffusers, and insulation parts.
- · Stationery: Rulers, cases, and other office supplies.
- Construction: Insulation panels, light diffusers, and decorative trims.

#### ➤ MAKEPS (Expandable Polystyrene):

- Insulation: Widely used in building and construction for thermal insulation.
- Packaging: Protective packaging for fragile items, food containers, and coolers.
- Decorative Elements: Molding, architectural shapes, and craft applications.

#### ➤ MAKXPS (Extruded Polystyrene):

- Construction: Superior insulation for walls, roofs, and floors, particularly in environments exposed to moisture.
- Civil Engineering: Road construction, underground insulation, and frost protection.
- Industrial Applications: Cold storage insulation and refrigerated transportation.

#### **Packaging**

Our products are available in 25 kg and 50 kg bags to accommodate your production and storage requirements and pallet Form for bulk storage and handling.

#### Storage Instructions:

To ensure the quality and performance of MAKPS, EPS, and XPS, it is crucial to store the products in a cool, dry place. Proper storage prevents moisture absorption, maintaining the materials' optimal properties.



MAKWHITE Masterbatches are high-quality white colorants primarily formulated with titanium dioxide. These masterbatches provide excellent dispersion and are designed for coloring a wide range of plastic resins, including polyethylene, polypropylene, and polystyrene.

#### **Application**

MAKWHITE Masterbatches disperses effortlessly, making it ideal for use in various processes such as blow film, blow molding, film/sheet extrusion, and injection molding. Certain grades are composed of high-quality ingredients approved for food contact, ensuring safety when used in food-related applications like packaging films and food containers.

### **Packaging**

MAKWHITE Masterbatches is supplied in pellet form, packaged in 25 kg polyethylene (PE) bags with an outer layer of laminated PP-woven paper. To maintain quality, store in a cool, dry environment to prevent moisture absorption.



MAKCOLOR-Colorant products are highly concentrated masterbatches used to color a variety of plastic resins. Key benefits include:

- Excellent dispersion and ease of processing
- Strong tinting strength
- Dust-free composition, ensuring a clean processing environment

MAKCOLOR-Colorant is available in a broad spectrum of standard colors, as well as custom shades tailored to meet specific customer needs across various polymers, processes, and applications, including food contact-approved grades.

#### **Application**

MAKCOLOR-Colorant is suitable for numerous polyolefin processes such as blown film, blow molding, extrusion, and injection molding. It can be applied to create products like plastic bags, packaging materials, shopping bags, sheets, agricultural products, bottles, toys, containers (small and large), housewares, cables, pipes, electronics, and automotive parts.

The appropriate addition level of MAK/MB-Colorant depends on the specific application, desired color intensity, and shade.

#### **Grade:**

- General: Masterbatches containing organic and inorganic pigments for a full range of colors.
- Fluorescent: Masterbatches with fluorescent pigments for bright, vivid colors.
- Special Effect: Masterbatches featuring pearlescent, silver, and gold effects for a premium look.

#### **Packaging**

MAKCOLOR-Colorant is supplied in pellet form, packaged in 25 kg polyethylene (PE) bags with a laminated PP-woven paper outer layer. For optimal storage, keep in a cool and dry place to prevent moisture absorption.



MAKSPC is a high-performance protective top coat designed to enhance the durability of steel pipelines in industries like oil, gas, and water transport. It offers long-term protection against harsh environments, minimizing maintenance and ensuring pipeline reliability.

#### **Key Applications**

- Oil & Gas Industry
- Water Infrastructure

#### **Unique Features**

- Superior Processability: Easy application with a smooth finish.
- High-Temperature Resistance: Maintains integrity during high-temperature processing.
- Durability: Strong mechanical strength and resistance to environmental stress cracking (ESCR) in varying temperatures.
- Long-Term Stability: Resistant to degradation for consistent performance.
- Enhanced Adhesion: Bonds strongly to the adhesive layer for improved durability.

#### **Processing Guidelines**

Apply via spraying onto the adhesive layer with proper heat and time for melting and leveling.

#### **Storage Recommendations**

Store in a dry, cool, well-ventilated area, away from moisture.

#### Safety & Compliance

Complies with safety regulations and industry standards. Refer to the Safety Data Sheet (SDS) for handling and disposal guidelines.



# M.A.K. Germany GmbH

**Your Trusted Partner in Chemical Trading** 

With over 30 years of experience, M.A.K. Germany GmbH is a leader in chemical trading, focusing on polymers. We're proud to be a link between the Middle East's polymer products and Germany's innovative chemical solutions, adhering to the highest industry standards.

We source essential materials like Polypropylene (PP), Polyethylene (PE), Low-Density Polyethylene (LDPE), and High-Density Polyethylene (HDPE) for top European manufacturers. Additionally, we offer advanced European chemical additives to enhance production processes for Middle Eastern polymer manufacturers.

For advanced materials or a reliable long-term partner, M.A.K. Germany GmbH delivers the expertise, support, and value you need to succeed.





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