



Coathylene[®] Polymer Powders

Thermoplastic Powder Additives for masterbatch

Excellent pigment dispersion - Color efficiency - Cost optimization



Coathylene[®] - fine thermoplastic powders used as dispersion agents in masterbatches

To produce uniformly colored plastic items, it is necessary to homogeneously disperse pigment within a polymeric matrix. This process consists of compounding the polymeric matrix with a Masterbatch.

Masterbatch is a concentrated mixture of pigments and/or additives encapsulated during a heating process into a carrier resin which is then cooled and cut into a granular shape. Using a Masterbatch allows the processor to color raw polymer economically during the manufacturing process.

Color Masterbatches are made by dry blending pigments with carrier resin, ideally in powder form. The advantages of using a powdered polymer as opposed to granules are; more even pigment dispersion and thus higher color efficiency, while keeping the pigment level, and hence cost, to a minimum.

The advantages of using fine powder for masterbatches:

- **Excellent dispersion of the pigment**
- **Much higher pigment absorption per weight due to very high specific area**
- **Strong color efficiency**

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Overview of the most common grades used in Masterbatch applications*:

*other commercial grades are available upon request.

Grade	Polymer	Melt Flow Index (190°C / 2.16kg)	Particle Size (µm) X ₅₀
Coathylene® HA 2578	LDPE	20 g/10 min	12 - 22
Coathylene® HA 1681	LDPE	70 g/10 min	12 - 22
Coathylene® HO 1681	LDPE	70 g/10 min	250 - 320
Coathylene® SB 0425	PS	23 g/10 min (200°C/5.00 kg)	45 - 60
Coathylene® SL 0425	PS	23 g/10 min (200°C/5.00 kg)	150 - 210
Coathylene® PC 0580	PP	48 g/10 min	55 - 75
Coathylene® PD 0580	PP	48 g/10 min	80 - 120
Coathylene® GL 2561	PLA	15 g/10 min	180 - 270
Coathylene® TB 3580	EEAMA	40 g/10 min	18 - 30
Coathylene® MM4252	EMA	8 g/10 min	200 - 250

Example: Coathylene® MM 4252 :

Coathylene® MM4252 is a powder of Ethylene Methyl Acrylate Copolymer based on a proprietary resin.

Thanks to simultaneous polarity from the methyl acrylate and the non-polarity of the ethylene as well as its fine particle size, Coathylene® MM4252 offers numerous advantages for multiple applications.

- Compatibilizer for various technical polymers such as PE, PP, PA, ABS, PET, POM
- High performance base resin able to absorb a higher quantity of pigment by weight unit than a standard resin.
- Stronger color efficiency and faster processing when used as carrier resin for masterbatches.
- High thermal resistance
- High flexibility even at low temperature
- Dramatic improvement of the Environmental Stress Cracking Resistance

Coathylene® MM4252 is easily processed on standard compounding equipment.
Recommended temperature range:
150°C – 330°C



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Our address

Axalta Polymer Powders

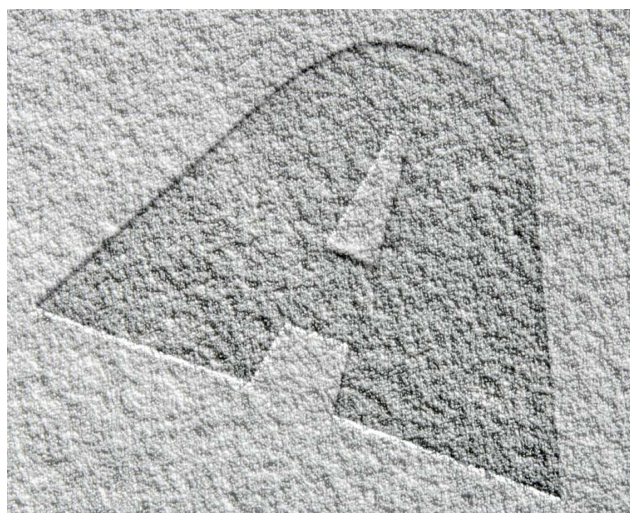
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Axalta Polymer Powders offers a wide range of powder coatings and micro-powder additives based on many different polymer chemistries. Do not hesitate to contact us to discuss your specific requirements.