



# MULTIBASE™ MB50-011

## Silicone Masterbatch

DuPont MULTIBASE™ MB50-011 Masterbatch is a pelletized formulation containing 50% of an ultra-high molecular weight (UHMW) siloxane polymer dispersed in polyamide 6.

It is designed to be used as an additive in most polyamide compatible systems to impart benefits such as processing improvements. Liquid siloxane plastic additives have been used for several years to improve the lubricity and flow of thermoplastics. They are effective in this role although some difficulties have been experienced in the incorporation of liquids into thermoplastic melts without the use of specialized equipment. It has also been difficult to produce masterbatches with greater than 20% liquid siloxane because of processing difficulty and bleed problems.

The DuPont MULTIBASE™ MB Series Masterbatches address these problems by supplying a high concentration of an ultra-high molecular weight (UHMW) siloxane as a dispersion in a dry pellet form in a variety of thermoplastics.

### Applications

Additive in polyamide compatible systems

### Benefits

When added to nylon or similar thermoplastics at 0.2% to 2.0% siloxane, improved processing and flow of the resin is expected, including better mold release and faster throughput.

The DuPont MULTIBASE™ MB Series Masterbatches are expected to give improved benefits compared to conventional lower molecular weight siloxane additives, e.g. less screw slippage, improved release. The addition of 2% polydimethylsiloxane (PDMS) gives a significant reduction in wear rate. An ultra-high molecular weight siloxane additive in polyamide 6,6 has a small effect on tensile and impact strengths and a significant effect on coefficient of friction values.

### Product information

Color	White	
Polydimethylsiloxane content	50 %	PhEur 1470

### Other properties

Recommended use level	0.4 - 2 %
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### Storage and stability

Shelf life	48 months
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### Characteristics

Compatibility	Polyamides
Food contact	FDA 21 CFR



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### Additional information

#### How to use

DuPont MB Series Masterbatches may be processed in the same way as the thermoplastics on which they are based.

Sufficient DuPont MB50-011 Masterbatch should be blended with virgin polymer pellets to give the desired siloxane level in the final product.

DuPont MB50-011 Masterbatch pellets can be added during compounding in a single screw extruder or added at the feed hopper during injection molding or extrusion.

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