

# Siloxane Masterbatch MB50-001

Siloxane Polymer (UHMW)  
Multibase, A Dow Corning Company

Message:

Ultra-high molecular weight siloxane polymer.

DOW CORNING MB50-001 Masterbatch is a pelletized formulation containing 50% of an ultra-high molecular weight siloxane polymer dispersed in polypropylene (PP) homopolymer. It is designed to be used as an additive in polypropylene-compatible systems to impart benefits such as processing improvements and modification of surface characteristics.

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 DOW CORNING® MB Series Masterbatches address these problems by supplying a high concentration of an ultra-high molecular weight siloxane as a dispersion in a dry pellet form in a variety of thermoplastics.

BENEFITS

When added to polypropylene or similar thermoplastics at 0.1% to 1.0%, improved processing and flow of the resin is expected, including better mold filling, less extruder torque, internal lubrication, mold release and faster throughput. At higher addition levels, 1% to 5% siloxane, improved surface properties are expected, including lubricity, slip, lower coefficient of friction, and greater mar and abrasion resistance. A study evaluating paintability showed no adverse effects in polypropylene with up to 5% ultra-high molecular weight siloxane added.

The DOW CORNING MB Series Masterbatches are expected to give improved benefits compared to conventional lower molecular weight siloxane additives, e.g., less screw slippage, improved release, a lower coefficient of friction, fewer paint and printing problems, and a broader range of performance capabilities.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HOW TO USE

DOW CORNING MB Series Masterbatches may be processed in the same way as the thermoplastics on which they are based. Sufficient DOW CORNING MB50-001 Masterbatch should be blended with virgin polymer pellets to give the desired siloxane level in the final product. DOW CORNING MB50-001 Masterbatch pellets can be added during compounding in a single screw extruder or added at the feed hopper during injection molding or extrusion.

General Information	
Additive	Silicone lubricant
	demoulding
	slip agent
Features	Kosher certification
	Ultra high molecular weight
	smoothness
	Excellent printability
	Workability, good
	Sprayable
	Good processing stability
	Good liquidity
	Good wear resistance
	Scratch resistance
	Lubrication
	Good demoulding performance
	Excellent appearance

Uses	Composite Mixing
Agency Ratings	BgVV Unspecified Rating FDA 21 CFR 177.1520
Appearance	White-like
Forms	Particle
Processing Method	Composite Extrusion Injection molding

#### Additional Information

Siloxane Content: 50%Organic Resin: Polypropylene, MI 12Suggested Use Level (0.1 to 5% siloxane): 0.2 to 10%

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