# Siloxane Masterbatch MB40-006

Siloxane Polymer (UHMW)

### Multibase, A Dow Corning Company

#### Message:

DESCRIPTION

DOW CORNING MB40006 Masterbatch is a pelletized formulation containing 40% of an ultra-high molecular weight (UHMW) siloxane polymer dispersed polyoxymethylene (acetal) copolymer. It is designed to be used as an additive in most acetal 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<sup>®</sup> 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.

#### BENEFITS

When added to acetal or similar thermoplastics at 0.2% to 2.0%, 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, 2% to 10%, improved surface properties are expected, including lubricity, slip, lower coefficient of friction, and greater mar and abrasion resistance.

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.

#### FOOD CONTACT

DOW CORNING MB40006 Masterbatch is suitable for use as a slip or release agent in the production of the basic polymer or finished food contact article in compliance with US FDA regulation 21 CFR 177.2470. The acetal portion of DOW CORNING MB40006 Masterbatch complies with 177.2470 and the siloxane portion complies with 181.28.

This document is available from your local Dow Corning representative.

#### 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 MB40006 Masterbatch should be blended with virgin polymer pellets to give the desired siloxane level in the final product. DOW CORNING MB40006 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	Mold Release
	Silicone Lubricant
	Slip
Features	Excellent Printability
	Food Contact Acceptable
	Good Abrasion Resistance
	Good Flow
	Good Mold Release
	Good Processability
	Good Surface Finish
	Good Wear Resistance
	Low Friction
	Lubricated
	Paintable
	Scratch Resistant

Slip

0.20 to 10

Ultra High Molecular Weight

Uses	Blending		
	Compounding		
	Plastics Modification		
Agency Ratings	FDA 21 CFR 177.2470 181.28		
Appearance	Off-White		
Forms	Pellets		
Processing Method	Compounding Extrusion		
	Injection Molding		
Additional Information	Nominal Value	Unit	
Organic Resin	Polyoxymethylene (acetal) copolymer, MI 27		
Siloxane Content	40	%	

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