



# MULTIBASE™ HMB-1103 (PRELIMINARY)

## Silicone Masterbatch

DuPont MULTIBASE™ HMB-1103 Masterbatch is a new-generation tribological modifier and processing aid designed for polar engineered based systems such as PA.

DuPont MULTIBASE™ HMB-1103 Masterbatch delivers slip and wear performance similar to that of standard, highly loaded PTFE compounds. DuPont MULTIBASE™ HMB-1103 Masterbatch is also highly efficient at suppressing stick-slip phenomenon. DuPont HMB-1103 Masterbatch acts as a processing aid and improves flowability.

### Applications

Suggested for highly demanding applications requiring long-term slip performance and wear resistance. Typical examples are bearings, gears and conveyor belts, window lifting systems and steering column sensors, housings and roller shutter systems, kitchen and household appliances, sports equipment as well as car seats adjustment systems.

### Benefits

When used in polar engineered plastics such as PA and POM, DuPont HMB-1103 Masterbatch demonstrates the benefits below when compared to a standard PTFE formulation:

- Similar COF improvement (in-kind and out-of-kind) under high and low loads
- Similar wear resistance (in-kind and out-of-kind) under high and low loads
- Long-term efficiency
- Mechanical performance improvement
- Flowability improvement
- Processability improvement
- Lower density
- Efficient at lower loadings
- Easy-to-handle pellets
- Suitable for low- and high-speed applications
- No slip-stick development

### Product information

Color	White
Maximum Service Temperature	300 °C

### Thermal properties

Melting temperature, 18°F/min	101 °C	ISO 11357-1/-3
-------------------------------	--------	----------------

### Other properties

Density	950 kg/m <sup>3</sup>	ISO 1183
---------	-----------------------	----------



# MULTIBASE™ HMB-1103 (PRELIMINARY)

## Silicone Masterbatch

### Storage and stability

Shelf life 48 months

### Characteristics

Compatibility Polyamides, Polyacetals

Food contact FDA 21 CFR

### Additional information

How to use DuPont HMB-1103 Masterbatch additive levels are suggested between 1.5 and 5 wt%. These low dosages allow you to recover lost mechanical performance (tensile and impact) vs. standard, highly loaded PTFE compounds. It can be used in classical melt blending processes such as twin screw extruders. A physical blend with neat polymer pellets and feed in OD are suggested. The additive is also suitable for direct dilution on injection press. It is highly recommended to keep melt temperature below 300°C to ensure proper performance.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

The information set forth herein is furnished free of charge, is based on technical data that DuPont believes to be reliable, and represents typical values that fall within the normal range of properties. This information relates only to the specific material designated and may not be valid for such material used in combination with other materials or in other processes. It is intended for use by persons having technical skill, at their own discretion and risk. This information should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards and comply with applicable law. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents.

CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract or other acknowledgement that is consistent with the DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative.

DuPont's sole warranty is that our products will meet our standard sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DUPONT SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR NON-INFRINGEMENT. DUPONT DISCLAIMS LIABILITY FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted.

© 2022 DuPont. All rights reserved.