

Magnasoft™ 175 Textile Softener

Product Description

Magnasoft 175 textile softener is a high solid, transparent emulsion of amino-modified silicone that can be readily diluted into a very clear micro-emulsion. It may be considered for use in textile mills to prepare a bath solution, by directly diluting it with water. It can be used in hard water medium as well.

Magnasoft 175 textile softener can provide a durable and superior slick softness and even an elastomeric drape property to a broad range of woven and knitted fabrics, with a relatively lower yellowing, compared to conventional amino silicones.

Magnasoft 175 textile softener is manufactured without alkyl phenol based chemicals (APEO).

Key Features and Typical Benefits

- High solid, clear microemulsion with excellent stability after dilution, even in hard water; typically does not create any oil spot problems because of the stable and clear microemulsion
- Medium viscosity and ready-to-use as it is easily dispersible in water. It can be diluted in a simple mixer, or even by stirring with a hand stick
- Excellent softening ability because the fine droplet size allows for efficient inter-fiber penetration of the silicone phase
- Can impart superior softness, slickness and elasticity to various types of fabric with low yellowing effect
- Good compatibility with most other finish bath components, such as organic cationic softeners, durable press resins, optical brightening agents and antistatic agents
- Can provide low temperature cure and remarkable wash, with laundry durability of softness
- Can enhance physical properties of treated fabrics, especially tear strength and abrasion resistance
- Can be applied by exhaustion or padding continuous process
- Typically economical to use
- Produced without alkyl phenol based chemicals

Typical Physical Properties

Appearance	Clear to translucent liquid
Solid Content (%)	54
Viscosity, 25 °C, #3/6	< 9000 cps
Specific Gravity, 25 °C (77 °F)	1.0
pH (25 °C)	6
Ionic Character	Non-ionic
Suitable Dilutant	Water

Typical properties are average data and are not to be used as or to develop specifications.

Potential Applications

The diluted Magnasoft 175 textile softener microemulsion can be applied by most padding or exhaustion finishing processes, as well as, the garment washing process, and may be considered for use with the following:

- Cotton or cotton / PE blended woven goods
- Mercerized cotton goods
- Wool/wool blended knits and worsted wool woven
- Polyester fiber and thread lubricants
- Softener in wrinkle free finish

General Considerations for Use

Magnasoft 175 textile softener can be diluted directly in a finishing bath. Common initial dosages for different types of fibers / fabrics are:

100% cotton woven-goods	: 5 g/L - 12 g/L
T/C woven-good	: 3 g/L - 10 g/L
Wool	: 3 g/L - 12 g/L
PE/Wool	: 2 g/L - 10 g/L
Viscose	: 2 g/L - 8 g/L
Rayon	: 2 g/L - 10 g/L
Silk (exhaustion process)	: 0.4 % - 0.8 % on the weight of fabric

The optimum dosage depends on the required softness, type of fabric and finishing conditions. The following application conditions are common initial rates:

1. Pad-dry-cure Continuous Process (for 100% cotton goods)

Dosage	: 5 ~ 12 g/L
pH	: 5.5 ~ 6.5
Temperature	: Ambient
Pick-up	: 65 ~ 100 %
Drying	: 100 ~ 130 °C x 1 - 3 minutes

2. Exhaustion Process (for 100% cotton goods)

Dosage	: 0.4 ~ 0.8 % on the weight of fabric
Liquor Ratio	: 1/8 ~ 1/20
pH	: 5.5 ~ 6.5
Temperature	: 40 °C
Time	: 15 ~ 30 minutes
Drying	: 100 ~ 120 °C

Dilution Procedure

Magnasoft 175 textile softener can be easily diluted to a lower solids content before application according to the requirement. For example, for the preparation of a microemulsion containing about 16.5% solids, the typical formulation is:

Magnasoft 175 textile softener	: 30 %
Water	: 70 %
Biocides	: (a)

1. Charge 70 kg of water into a blender/mixer
2. Slowly charge 30 kg of Magnasoft 175 textile softener into the same blender while stirring and continue to stir at about 500 rpm for 20 to 30 minutes. Upon stirring, the emulsion will turn from a bluish hazy state to a clear state.

(a) Biocides must be used in accordance with local country regulations and manufacturer's label directions.

Precautions

1. Dilute with cold or warm water

Magnasoft 175 textile softener is generally stable in hard water. However, should the water supply be of 200 ppm hardness or higher, softened water or boiler condensate is recommended as a diluent.

2. Compatibility

Magnasoft 175 textile softener may not be compatible with certain materials, such as anionics, lower alcohols, salts, etc., which may break the silicone emulsion. Any mixture of reactive emulsions with other materials should be thoroughly checked before it is put into factory production.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Customer Service Centers

For additional information, please contact our Customer Service Team

AMERICAS	+1 800 295 2392 Toll Free* +704 805 6946 Direct Number
LATIN AMERICA	BRAZIL +55 11 4534 9650 Direct Number MEXICO +52 55 2169 7670 Direct Number *All American countries
EMEA – EUROPE, MIDDLE EAST, AFRICA & INDIA	EUROPE +390510924300 Direct Number INDIA, MIDDLE EAST & AFRICA +91 44 71212207 Direct Number* *All Middle Eastern countries, Africa, India, Pakistan, Bangladesh, Sri Lanka
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260 Hudson River Road
Waterford, NY 12188 USA
momentive.com