

Tospearl™ 240

Tospearl* 240

Description

The Tospearl series, Tospearl 120, Tospearl 130, Tospearl 105, Tospearl 240, and Tospearl 3120 are micro-fine silicone resins. These resins are available in a variety of sizes from 0.5 to 12.0 microns for use in different applications. Particle size is finely controlled for optimum consistency.

Key Features and Benefits

- Excellent water repellency, lubricity, and heat resistance
- Insoluble in organic solvents
- No melting by heat up to 900°C
- Minimum coagulation
- Excellent dispersibility

Typical Physical Properties

| Appearance | Tospearl 120 | Tospearl 130 | Tospearl 145 | Tospearl 240 | Tospearl 3120 | Tospearl 105 | Tospearl 2000B |
|------------------------------|--------------|--------------|--------------|--------------|---------------|--------------|----------------|
| Average particle size (µm) | 2 | 3 | 4.5 | 4 | 12.0 | 0.5 | 4.8 |
| Water Content (105°C, 60min) | 2% or less | 2% or less | 2% or less | 2% or less | 2% or less | 5% or less | 5% or less |
| pH* | 6-8.5 | 6-8.5 | 6-8.5 | 6-8.5 | 7.5 | 7.5 | 6-8.5 |
| Specific gravity (25°C) | 1.32 | 1.32 | 1.32 | 1.32 | 1.32 | 1.32 | 1.43 |

| | | | | | | | |
|--|-------|-------|-------|-------|------|------|-------|
| Bulk density | 0.35 | 0.36 | 0.43 | 0.17 | 0.46 | 0.25 | 0.46 |
| Specific surface area m ² /g | 15-35 | 10-30 | 10-30 | 20-45 | 18 | 70 | 20-30 |
| Linseed Oil absorption Rate mL/100g | 75 | 62 | 58 | 84 | 50 | 95 | 60 |

HEAT STABILITY

The following table shows the percentage of weight loss of Tospearl 120 and Tospearl 240 after heating to 350°C and 900°C.

| | Tospearl 120 | Tospearl 240 |
|-----------------------|--------------|--------------|
| Weight loss % @ 350°C | 2-3 | 2-3 |
| Weight loss % @ 900°C | 10-12 | 10-12 |

Note: Rate of temperature increase = 5°C/min

Potential Applications

Antiblocking Agent in Plastics Films: Tospearl series resins can decrease the contact between film layers, preventing them from sticking together. The silicone also improves clarity in the films while requiring lower usage levels than other antiblocks such as silica. Lubricity and spherical shape of these resins are said to improve extrusion output rates and slip characteristics of the film. The variety of particle sizes available makes these resins suitable for a variety of film thicknesses.

Paints and Inks: Tospearl series resins may be used in paints and inks to improve moisture resistance, to control viscosity, and for clarification of color tone and gloss control.

Toner Additive: Tospearl series resins may be used in copy machine and laser printer toners to control fluidity and to prevent static electricity.

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

The warranty period is 12 months from date of shipment from Momentive Performance Materials if stored in the original unopened container at 27°C (80°F).

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.

Specifications

FDA STATUS

Tospearl series resins comply with 21CFR 177.1520 (b) as optional adjuvant substances required in the production of olefin polymers. These resins may be used only as lubricants or anti-blocking agents at a level up to 0.5% in olefin polymers complying with this regulation.

Availability

Tospearl series of silicone resins may be ordered from Momentive Performance Materials, Waterford, NY, the Momentive Performance Materials sales office nearest you or an authorized Momentive Performance Materials' product distributor. Tospearl series silicone resins are available in the following container sizes:

| | Metric | US |
|----------------|---------------|-----------------|
| Tospearl 130 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 145 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 240 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 120 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 3120 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 105 | 1K, 10K | 2.2lb., 22.0lb. |
| Tospearl 2000B | 1K, 10K | 2.2lb., 22.0lb. |

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For literature and technical assistance, visit our website at: www.momentive.com

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