GE Bayer Silicones

Tospearl® series

Tospearl® Silicone Resin Series

Tospearl 120, 130, 145, 240, 3120, 2000

Product Description

The Tospearl® series, Tospearl 120, Tospearl 130, Tospearl 240, Tospearl 3120 and Tospearl 2000 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 Performance Properties

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

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 varity 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.

Typical Product Data

Appearance	Tospearl 120	Tospearl 130	Tospearl 145	Tospearl 240	Tospearl 3120	Tospearl 2000
Average particle size (µm)	2	3	4.5	4	12.0	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
pH*	6-8.5	6-8.5	6-8.5	6-8.5	7.5	6-8.5
Specific gravity (25°C)	1.32	1.32	1.32	1.32	1.32	1.43
Bulk density	0.35	0.36	0.43	0.17	0.46	0.46
Specific surface area m2/g	15-35	10-30	10-30	20-45	18	20-30
Linseed Oil absorption Rate mL/100g	75	62	58	84	50	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

Specifications

Typical product data values should not be used as 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.

Handling and Safety

Material Safety Data Sheets are available from GE Bayer Silicones. Similar information for solvents and other chemicals used with our products may be obtained from your suppliers.

Storage and Warranty Period

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

Availability

Tospearl® series of silicone resins may be ordered from GE Bayer Silicones, the GE Bayer Silicones sales office nearest you or an authorized GE Bayer Silicones' 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 2000	1K, 10K	2.2lb., 22.0lb.

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