

## TSR9500

### Description

TSR9500 are spherical silicone beads with narrow particle size distributions and a mean particle diameter of approximately 5 microns. The low refractive index and uniform particle size are especially beneficial for light diffusion applications when the beads are added to polymer systems such as polycarbonates, polystyrene and acrylics. The high thermal stability of the silicone beads allows for high temperature processing including extrusion and injection molding.

### Key Features and Typical Benefits

- Low refractive index gives optimal light diffusion properties at low dosage levels when the beads are formulated with acrylic, polystyrene and polycarbonate resins
- Spherical geometry results in provides for uniform particle distribution in organic binders and polymers
- High heat stability allows TSR 9500 to be processed with plastics using typical polymer processing equipment, i.e., extruders, injection molders
- Improvement in wear resistance and modification of slip properties of polymer surfaces

### Typical Physical Properties

Properties		
Appearance		White spherical beads
Average Particle Size	µm	5.0
Weight loss at 250 °C for 30min	%	0.4
pH		7.0
Particle Specific Gravity (25 °C)	g/cm <sup>3</sup>	1.32
Bulk Gravity	g/ml	0.35

Refractive Index	1.42
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Typical properties are average data and are not to be used as or to develop specifications.

### Heat Stability

The following table shows the percentage of weight loss for TSR9500 after heating to 350 and 900 °C, respectively.

Heat Stability	
Weight Loss % at 350 °C	2 - 3
Weight Loss % at 900 °C	10 - 12

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

### 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

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### Limitations

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innovation and being first to market – with performance applications that improve everyday life. By knowing our customers’ needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

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