# Thermo Scientific 5000 Series Polymer/ 7000 Series Co-Polymer Bead Suspensions

Accurately analyze non-diagnostic particulates of various sizes

- Offers the flexibility for use in numerous non-diagnostic testing and R&D applications
- Wide range of sizes (0.03 µm to 222 µm) for analysis of particulate matter of various sizes and properties
- Uniform diameters are confirmed by optical microscopy, photon correlation spectroscopy or light scattering to ensure reliable, accurate results
- Manufactured under strict quality and GMP control in our FDA registered and ISO-13485 certified facility





# 5000 Series Polymer

The Thermo Scientific 5000 Series of polymer latex beads feature diameters in the colloidal size range of 0.03  $\mu$ m to 3.2  $\mu$ m, making them ideal for:

- light scattering, fluid mechanics research
- dispersion studies
- microporous filter evaluation, checking and testing
- aerosol particle generation

### 7000 Series Co-polymer

With a size range of 3.2 µm to 222 µm, the Thermo Scientific 7000 Series of co-polymer beads are especially designed for use as model systems when analyzing larger sized particulates. Typical applications include:

- large pore filter evaluation, checking and testing
- model systems for fluid mechanics research
- experimental particles for acoustical and optical analytical systems



## 5000 and 7000 Series Bead Suspensions

For specialty applications where precision and uniformity matters when analyzing particulates of various sizes, we offer 5000 Series polymer beads and 7000 Series co-polymer beads. While not intended for use in instrument calibration and diagnostic reagents, these beads feature diameters measured by optical microscopy, photon correlation spectroscopy or light scattering to ensure accuracy. Packaged as aqueous suspensions, the 15 mL ("A" catalog numbered bottles as listed below) are available for immediate purchase. If larger bottles are required, ask about our 100 mL "B" bottles and 1000 mL "C" bottles which are packaged to order; i.e., 5003B and 5003C, or 7503B and 7503C.

| Specifications       |   |  |  |
|----------------------|---|--|--|
| Composition          | 5000 Series: Polystyrene; 7000 Series: polystyrene crosslinked with divinylbenzene  |  |  |
| Density              | 1.05 g/cm <sup>3</sup>  |  |  |
| Index of refraction  | 1.59 @ 589 nm (25°C)  |  |  |
| Additives            | Trace amount of surfactant  |  |  |
| Concentration        | 10%   |  |  |
| Shelf life           | ≥ 24 months   |  |  |
| Documentation        | Package Insert Sheet, Safety Data Sheet available upon request  |  |  |
| Storage and Handling | Unless otherwise stated, store at room temperature or refrigerate (2-8 °C) product when not in use but do not freeze. Store upright and keep bottle tightly sealed. |  |  |

### 5000 Series

| Nominal<br>Diameter | Size<br>Uniformity | Bottle<br>Size | %<br>Solids | Catalog<br>Number |
|---------------------|--------------------|----------------|-------------|-------------------|
| 0.03 µm             | ≤ 30%              | 15 mL          | 10%         | 5003A             |
| 0.06 µm             | ≤ 18%              | 15 mL          | 10%         | 5006A             |
| 0.08 µm             | ≤ 18%              | 15 mL          | 10%         | 5008A             |
| 0.09 µm             | ≤ 15%              | 15 mL          | 10%         | 5009A             |
| 0.10 µm             | ≤ 15%              | 15 mL          | 10%         | 5010A             |
| 0.11 µm             | ≤ 12%              | 15 mL          | 10%         | 5011A             |
| 0.12 µm             | ≤ 12%              | 15 mL          | 10%         | 5012A             |
| 0.14 µm             | ≤6%                | 15 mL          | 10%         | 5014A             |
| 0.16 µm             | ≤6%                | 15 mL          | 10%         | 5016A             |
| 0.17 µm             | ≤ 5%               | 15 mL          | 10%         | 5017A             |
| 0.20 µm             | ≤ 5%               | 15 mL          | 10%         | 5020A             |
| 0.22 µm             | ≤3%                | 15 mL          | 10%         | 5022A             |
| 0.24 µm             | ≤3%                | 15 mL          | 10%         | 5024A             |
| 0.26 µm             | ≤3%                | 15 mL          | 10%         | 5026A             |
| 0.30 µm             | ≤3%                | 15 mL          | 10%         | 5030A             |
| 0.31 µm             | ≤3%                | 15 mL          | 10%         | 5031A             |
| 0.33 µm             | ≤3%                | 15 mL          | 10%         | 5033A             |
| 0.36 µm             | ≤3%                | 15 mL          | 10%         | 5036A             |
| 0.43 µm             | ≤3%                | 15 mL          | 10%         | 5043A             |
| 0.45 µm             | ≤3%                | 15 mL          | 10%         | 5045A             |
| 0.49 µm             | ≤3%                | 15 mL          | 10%         | 5049A             |
| 0.50 µm             | ≤3%                | 15 mL          | 10%         | 5050A             |
| 0.51 µm             | ≤3%                | 15 mL          | 10%         | 5051A             |
| 0.52 µm             | ≤3%                | 15 mL          | 10%         | 5052A             |
| 0.60 µm             | ≤3%                | 15 mL          | 10%         | 5060A             |
| 0.65 µm             | ≤3%                | 15 mL          | 10%         | 5065A             |
| 0.67 µm             | ≤3%                | 15 mL          | 10%         | 5067A             |
| 0.75 µm             | ≤3%                | 15 mL          | 10%         | 5074A             |

| Nominal<br>Diameter | Size<br>Uniformity | Bottle<br>Size | %<br>Solids | Catalog<br>Number |
|---------------------|--------------------|----------------|-------------|-------------------|
| 0.81 µm             | ≤ 3%               | 15 mL          | 10%         | 5081A             |
| 0.88 µm             | ≤ 3%               | 15 mL          | 10%         | 5088A             |
| 0.93 µm             | ≤ 3%               | 15 mL          | 10%         | 5093A             |
| 1.0 µm              | ≤ 3%               | 15 mL          | 10%         | 5100A             |
| 1.3 µm              | ≤ 5%               | 15 mL          | 10%         | 5130A             |
| 1.5 µm              | ≤ 4%               | 15 mL          | 10%         | 5153A             |
| 2.0 µm              | ≤ 4%               | 15 mL          | 10%         | 5200A             |
| 2.9 µm              | ≤ 5%               | 15 mL          | 10%         | 5300A             |
| 3.2 µm              | ≤ 5%               | 15 mL          | 10%         | 5320A             |

# 7000 Series

| Nominal<br>Diameter | Size<br>Uniformity | Bottle<br>Size | %<br>Solids | Catalog<br>Number |
|---------------------|--------------------|----------------|-------------|-------------------|
| 3.2 µm              | ≤ 45%              | 15 mL          | 10%         | 7503A             |
| 6.0 µm              | ≤ 25%              | 15 mL          | 10%         | 7505A             |
| 7.9 µm              | ≤ 20%              | 15 mL          | 10%         | 7508A             |
| 11 µm               | ≤ 18%              | 15 mL          | 10%         | 7510A             |
| 17 µm               | ≤ 16%              | 15 mL          | 10%         | 7516A             |
| 19 µm               | ≤ 16%              | 15 mL          | 10%         | 7520A             |
| 25 µm               | ≤ 15%              | 15 mL          | 10%         | 7525A             |
| 45 µm               | ≤ 15%              | 15 mL          | 10%         | 7545A             |
| 55 µm               | ≤ 16%              | 15 mL          | 10%         | 7550A             |
| 71 µm               | ≤ 15%              | 15 mL          | 10%         | 7575A             |
| 90 µm               | ≤ 16%              | 15 mL          | 10%         | 7590A             |
| 97 µm               | ≤ 12%              | 15 mL          | 10%         | 7602A             |
| 134 µm              | ≤ 16%              | 15 mL          | 10%         | 7640A             |
| 222 um              | ≤ 12%              | 15 mL          | 10%         | 7725A             |

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