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General Catalog Polymer Particles

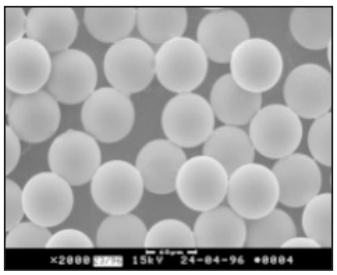
Catalog Numbers: 23579, 03197, 18148, 04342, 06068, 04022, 16724, 08816, 06579

DESCRIPTION

Polysciences' general catalog selection of polymer particles includes various polymer mixtures and grades. If your specific needs are not addressed by the products below, please contact us regarding our custom opportunities.

POLYBEAD® CROSSLINKED MELAMINE PARTICLES (CAT. CODE #23579)

The Polybead® Crosslinked Melamine Particles are highly uniform spherical beads that are crosslinked by acid-catalyzed reaction with formaldehyde. Due to the high level of crosslinking, the particles are stable at temperatures up to 300˚C and they do not noticeably swell in organic solvents. The particles are supplied as a 2.5% solids aqueous dispersion.



Polybead® Crosslinked Melamine Particles

Melamine particles have a higher density and refractive index than polystyrene beads. The particle surface is considered to be hydrophilic, and it features amine and methylolamine groups. Typically, surfactants and other stabilizers are not required in storage or working buffers. Melamine particles can withstand lyophilization and re-dispersal in aqueous media.

Particle Characteristics

Composition:	Crosslinked melamine resin
Mean Diameter:	~1µm
Size Distribution:	Monodisperse
Density:	~1.51 g/cm^3
Refractive Index:	~1.68 (at 589nm, 25˚C)
Concentration:	~2.5% solids in water
Surface Functional Groups:	Amine and methylolamine

POLY(ETHYL METHACRYLATE) BEADS (CAT. CODE #03197)

The Poly(ethyl methacrylate) Beads are ~140 - 220µm spherical resin particles composed of a low molecular weight ethyl methacrylate copolymer. The particles have low viscosity and broad solubility characteristics that enable use in inks or lacquers as wetting enhancers for solvent-sensitive pigments or substrates. These particles are supplied dry.

Particle Characteristics

Composition:	Poly(ethylmethacrylate) resin
Particle Size (D50):	140 - 220µm

Particle Characteristics , cont.

Molecular Weight:	50,000
Specific Gravitiy:	~1.14 g/cm^3
Glass Transition Temperature:	65˚C
Inherent Viscosity:	0.18 - 0.238
Tensile Strength:	1,000 psi

POLY(4-IODOSYTRENE / STYRENE / DIVINYLBENZENE (CAT. CODE #18148)

The Poly(4-iodostyrene/styrene/divinylbenzene) particles have a reactive iodostyrene surface that may be derivatized via the iodine atom. These particles are supplied dry.

Particle Characteristics

Composition:	Poly(4-iodostyrene/styrene/divinylbenzene) ~58:40:2
Iodine Percentage:	22%
Particle Size:	37 - 74µm (200 - 400 mesh)

POLYPROPYLENE, CHROMATOGRAPHIC GRADE (CAT. CODES #04342 & #06068)

The Polypropylene, Chromatographic Grade particles are available in two diameters, i.e. 25 - 85µm and 150µm. The particles are soluble in chlorinated hydrocarbons, aromatic hydrocarbons, and isoamyl acetate. These particels are supplied dry.

Particle Characteristics

Composition:	Polypropylene, chromatographic grade
Diameter Range:	25 - 85µm (Cat. Code #04342) 150µm (Cat. Code #06068)
Glass Transition Temperature:	-13˚C
Melting Point:	165˚C

POLY(STYRENE / DIVINYLBENZENE) COPOLYMER BEADS (CAT. CODES #04022 & #16724)

The Poly(styrene / divinylbenzene) Copolymer Beads are available with 2% or 8% DVB crosslinking. The beads swell in dichloromethane and may be used as precursor resins for the preparation of Merrifield and other crosslinked functionalized resins, e.g. aminomethylated, hydroxymethylated, etc. These beads are supplied dry.

Particle Characteristics

Composition:	Poly(styrene / divinylbenzene), 92:8 (Cat. Code #04022)

Particle Characteristics , cont.

Composition:	Poly(styrene / divinylbenzene), 98:2 (Cat. Code #16724)
Diameter Range:	37 - 74µm (200 - 400 mesh)

POLY(TETRAFLUOROETHYLENE), TEFLON™7A RESIN PARTICLES (CAT. CODE #08816)

The Poly(tetrafluoroethylene), Teflon™7A Resin Particles are ~30 - 35µm in diameter and exhibit a chemical inertness to most industrial chemicals and solvents. The high bulk density of the particles renders them useful for the fabrication of large moldings. These particles are supplied dry.

Particle Characteristics

Composition:	Poly(tetrafluoroethylene), Teflon™ 7A resin
Particle Size:	30 - 35µm
Bulk Density:	448g/L
Specific Gravity:	2.16 - 2.28 g/cm^3
Refractive Index:	1.35 - 1.38 (n20/D)
Glass Transition Temperature:	113˚C

POLY(4-VINYLPYRIDINE / DIVINYLBENZENE) BEADS (CAT. CODE #06579)

The Poly(4-vinylpyridine / divinylbenzene) Beads are spherical ion-exchange resin particles used as an absorbent for catalytic metal removal or recovery applications. These beads are supplied dry.

Particle Characteristics

Composition:	Poly(4-vinylpyridine / divinylbenzene)
Particle Size:	≥80% beads have diameter between 300 - 1000µm (18 - 50 mesh)
Crosslinking:	25% DVB
Bulk Density:	27.2 kg/ft^3
Average Pore Size:	450 angstroms
Weak Base Capacity:	5.0eq/kg dry, 1.7eq/L wet
Water Content:	~40 - 75%

STORAGE

Store Polybead® Crosslinked Melamine Particles at 4˚C. Do not freeze.

Store all dry particles at room temperature.

These products are for research use only and are not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. #	Description	Size
23579	Polybead® Crosslinked Melamine Particles	5ml
03197	Poly(ethyl methacrylate) Beads	250g
18148	Poly(4-iodostyrene/styrene/divinylbenzene)	5g
04342	Polypropylene, Chromatographic Grade	100g
06068	Polypropylene, Chromatographic Grade	500g
04022	Poly(styrene / divinylbenzene) Copolymer Beads, 25 - 85µm	100g
16724	Poly(styrene / divinylbenzene) Copolymer Beads, 150µm	100g
08816	Poly(tetrafluoroethylene), Teflon™7A Resin Particles	100g
06579	Poly(4-vinylpyridine / divinylbenzene) Beads	10g

TO ORDER

In The U.S. Call:	1(800) 523-2575 • (215) 343-6484
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