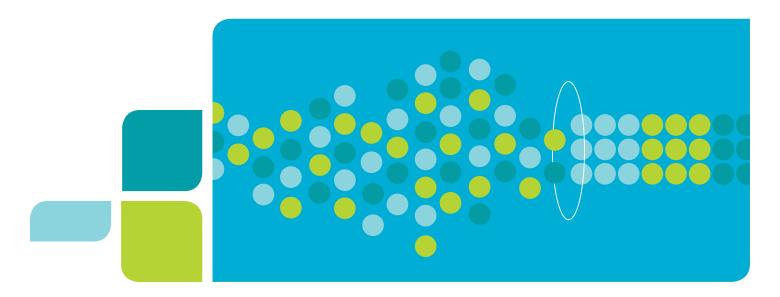
# **Process Separations — Specialty Beads**



# Bio-Gel® Resins

Family Members

- Bio-Gel P
- Polyacrylamide Gel
- Bio-Gel A Agarose Gel

## At a Glance

Bio-Gel Size Exclusion Resins are engineered for gentle, high-resolution separation of sensitive compounds in aqueous or organic solutions. They are available in various mesh sizes to accommodate a wide range of applications. They can be stored at ambient temperatures and are available in various sizes to aid multiple scales of purification.

**Bio-Gel P Technical Specifications** 

|                           | Hydrated Bead<br>Size, µm | Hydrated Bed<br>Volume Mass Dry<br>Gel, ml/g | Typical Flow Rate,<br>cm/hr* | Molecular Weight<br>Fractionation<br>Range |
|---------------------------|---------------------------|--|------------------------------|--|
| Bio-Gel P-2, fine         | 45-90                     | 3  | 5–10                         | 100–1,800                                  |
| Bio-Gel P-2, extra fine   | <45                       |  | <10                          |  |
| Bio-Gel P-4, medium       | 90–180                    | 4  | 15–20                        | 800-4,000                                  |
| Bio-Gel P-4, fine         | 45-90                     |  | 10-15                        |  |
| Bio-Gel P-4, extra fine   | <45                       |  | <10                          |  |
| Bio-Gel P-6, medium       | 90–180                    | 6.5  | 15-20                        | 1,000-6,000                                |
| Bio-Gel P-6, fine         | 45-90                     |  | 10–15                        |  |
| Bio-Gel P-6, extra fine   | <45                       |  | <10                          |  |
| Bio-Gel P-6DG Gel         | 90–180                    |  | 15-20                        |  |
| Bio-Gel P-10 Gel, medium  | 90–180                    | 7.5  | 15-20                        | 1,500-20,000                               |
| Bio-Gel P-10 Gel, fine    | 45-90                     |  | 10–15                        |  |
| Bio-Gel P-30 Gel, medium  | 90–180                    | 9  | 7–13                         | 2,400-40,000                               |
| Bio-Gel P-30 Gel, fine    | 45-90                     |  | 6–11                         |  |
| Bio-Gel P-60 Gel, medium  | 90–180                    | 11   | 4–6                          | 3,000-60,000                               |
| Bio-Gel P-60 Gel, fine    | 45-90                     |  | 3–5                          |  |
| Bio-Gel P-100 Gel, medium | 90–180                    | 12   | 4-6                          | 5,000-100,000                              |
| Bio-Gel P-100 Gel, fine   | 45-90                     |  | 3–5                          |  |

 $<sup>^{\</sup>star}$  Flow rates determined in a 1.5 x 70 cm column using hydrostatic pressure head-to-bed ratio of 1:1



## **Bio-Gel P Polyacrylamide Gel**

#### **Features**

- Prepared by copolymerization of acrylamide and N,N'-methylenebisacrylamide
- Chromatography type: size exclusion chromatography (SEC)
- Available in several particle size ranges with molecular weight exclusion limits ranging from 100 to 100,000 daltons
- Extremely hydrophilic and essentially nonionic
- Do not support microbial growth or leach carbohydrates (due to their synthetic composition), as dextrose and agarose gels can
- Autoclavable at pH 5.5–6.5 and operate over a pH range of 2–10
- Flow rate and resolution increase with increasing temperature in the range of 4–80°C

#### **Applications**

Purification of nucleotides, peptides, and tannins

#### **Related Product**

Bio-Gel P-6DG Gel (bulletin 2068), with a molecular weight exclusion limit of 6,000 daltons, is recommended specifically for desalting and buffer exchange applications. It provides rapid results with high sample recovery and minimal sample dilution. Its hydrophilicity ensures little or no interaction between the gel and sample molecules.

#### **Bio-Gel A Agarose Gel**

#### Features

- Consists of agarose beads in which the pore size is controlled by the percentage of agarose in the gel
- Compatible with all commonly used buffers and can be used with high-salt buffers without significantly changing the bed volume
- Bio-Gel A 1.5 m gel may be used at pH 4–13 and at 2–30°C
- The fractionation range is from 10,000 to 1,500,000 daltons

#### **Applications**

- Purification of antibodies and aggregates
- Isolation of immune complexes
- DNA fractionation
- Chromatin isolation and purification

#### **Additional Information**

Usage of Bio-Gel P Polyacrylamide Gel, bulletin LIT174 Usage of Bio-Gel A Agarose Gel, bulletin 4006139

Large bulk volumes and special packaging for industrial applications are available on request.

For technical/product support or to request a quote, email your regional Bio-Rad representative or contact customer service at 1-800-4-BIORAD (1-800-424-6723).

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