



Zettachring 6, 70567 Stuttgart, Germany  
 Tel: +49-711-13257-0 Fax: +49-711-13257-89  
 E-Mail: info.tbg@tosoh.com  
 Web: www.tosohbioscience.com

3604 Horizon Drive, Suite 100, King of Prussia, PA 19406, USA  
 Tel: +1-484-805-1219 Fax: +1-610-272-3028  
 E-Mail: info.tbl@tosoh.com  
 Web: www.tosohbioscience.com

## PRODUCT SPECIFICATION SHEET

**Product Name:** Toyopearl GigaCap® S-650M (strong cation exchange resin)

HW - 65    —    -O-R-SO<sub>3</sub>

**Part Numbers:**

21833	Toyopearl GigaCap S-650M, 75 µm, 100 mL
21834	Toyopearl GigaCap S-650M, 75 µm, 250 mL
21835	Toyopearl GigaCap S-650M, 75 µm, 1 L
21836	Toyopearl GigaCap S-650M, 75 µm, 5 L
21868	ToyoScreen GigaCap S-650M, 1 mL x 6 ea.
21869	ToyoScreen GigaCap S-650M, 5 mL x 6 ea.
21400	ToyoScreen Column Holder
42194	ToyoScreen Column Holder with fittings

**Product Description:** Toyopearl is a methacrylic polymer incorporating high mechanical and chemical stability. Resins are available as non-functionalised “HW” series resins for size exclusion separations, and derivatised with surface chemistries for alternative modes of chromatography such as ion exchange, hydrophobic interaction or affinity separations.

**Toyopearl GigaCap® S-650M** chromatographic resin is designed for cation exchange chromatography. This chromatographic mode separates molecules on the basis of ionic interactions between the sample and the resin. The separation is usually accomplished in buffered aqueous solution with a gradient of increasing ionic strength. Alternatively, pH adjustment may be used for control of elution.

**Formulation:** Particulate resin (spherical), available in particle size (mean diameter):  
 75 µm = “M” grade  
 Supplied as slurry in 20 % ethanol (v/v).

**Physicochemical Specifications:**

▪ Appearance	White resin slurry which settles upon standing
▪ Particle Size Distribution (≥ 80 % within range)	50 – 100 µm
▪ Exclusion Limit	6 x 10 <sup>5</sup> (Polyethylene Oxide)
▪ Mean Pore Diameter	500 Å
▪ Pressure drop across the column	max. 3 bar (recommended)
▪ Operating Linear Flowrate	normally 10 – 600 cm/hour
▪ Ion Exchange Capacity	0.15 ± 0.05 meq/mL
▪ Protein Adsorption Capacity	156 ± 20 mg/mL (human IgG)
▪ Bacterial Count	≤ 100 CFU/mL
▪ Endotoxin Concentration	≤ 10.0 endotoxin units/mL
▪ Pack sizes and type	100 mL, 250 mL, 1 L, 5 L, 50 L Packed in virgin Polyethylene container with Polypropylene cap.
▪ Resin Volume per Container	The indicated volume is the settled resin volume.

Note our technical hotline tel +49 (0)711 13257-57  
 and e-mail, [techsupport.tbg@tosoh.com](mailto:techsupport.tbg@tosoh.com)

▪ Shipping Solvent	72 % (v/v) slurry in 20 % (v/v) ethanol
▪ Long Term Storage Conditions	20 % (v/v) ethanol
▪ Cleaning in Place / Sanitization	0.5 M NaOH or 0.1 M HCl
▪ Foreign Substance(Colored Particle)	Max.6
▪ Eluable Matter	≤ 0.2 %