

**RESIN INFORMATION SHEET**

Product Name	TOYOPEARL® Butyl-650 (Hydrophobic interaction chromatography resin)	
Part Numbers	0043153	TOYOPEARL Butyl-650S, 25 mL
	0007476	TOYOPEARL Butyl-650S, 100 mL
	0014701	TOYOPEARL Butyl-650S, 1 L
	0007975	TOYOPEARL Butyl-650S, 5 L
	0018826	TOYOPEARL Butyl-650S, 50 L
	0019802	TOYOPEARL Butyl-650M, 25 mL
	0007477	TOYOPEARL Butyl-650M, 100 mL
	0014702	TOYOPEARL Butyl-650M, 1 L
	0007976	TOYOPEARL Butyl-650M, 5 L
	0018355	TOYOPEARL Butyl-650M, 50 L
	0043127	TOYOPEARL Butyl-650C, 25 mL
	0007478	TOYOPEARL Butyl-650C, 100 mL
	0014703	TOYOPEARL Butyl-650C, 1 L
	0007977	TOYOPEARL Butyl-650C, 5 L
	0022826	TOYOPEARL Butyl-650C, 50 L
Product Description	TOYOPEARL chromatographic resins are based on a rigid methacrylic polymer, resulting in high mechanical and chemical stability. Resins are available as non-functionalized “HW” series resins for size exclusion separations, and derivatized with surface chemistries for alternative modes of chromatography such as ion exchange, hydrophobic interaction or affinity separations. TOYOPEARL Butyl-650 chromatographic resins are designed for hydrophobic interaction chromatography. This chromatographic mode separates molecules on the basis of hydrophobic interactions between the sample and the ligand. The separation is usually accomplished in buffered aqueous solution with a gradient of decreasing ionic strength.	
Operating Conditions	Packing pressure	Typically 0.3 MPa
	Shipping solvent	20 % (v/v) ethanol
	Shipping formulation	72 % (v/v) slurry in shipping solvent (*)
	Pressure limiting factor	Depend on column hardware (typically 0.7 MPa)
	Operating linear flowrate	Typically 10 - 600 cm/hour
	Long-term storage conditions	20 % (v/v) ethanol
	Cleaning-in-place/Sanitization	0.1 - 0.5 mol/L NaOH or 0.1 mol/L HCl
Specifications	Particle size distribution (min. 80 % within range)	20 - 50 µm for S-grade 40 - 90 µm for M-grade 50 - 150 µm for C-grade
	Protein adsorption capacity (of lysozyme)	30 - 50 g/L
	Bacterial count	Max. 100 CFU/mL
	Endotoxin concentration	Max. 10.0 EU/mL
	Eluable matter	Max. 0.2 % (for dry gel)
	Foreign substance (colored particle)	Unobserved
Additional Information	Appearance	White resin slurry which settles upon standing
	Mean pore diameter (base resin)	100 nm (*)

(*) The value is for reference only, not guaranteed.

Lot-specific data are included in the Certificate of Analysis (COA) shipped with the product.
For detailed test procedures please refer to the appropriate Regulatory Support File.