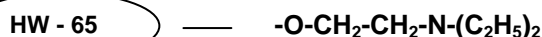


PRODUCT SPECIFICATION SHEET

Product Name: Toyopearl® DEAE-650 (weak anion exchange resin)



Part Numbers:	19804	Toyopearl DEAE-650S, 35 µm, 25 mL
	07472	Toyopearl DEAE-650S, 35 µm, 250 mL
	14692	Toyopearl DEAE-650S, 35 µm, 1 L
	07973	Toyopearl DEAE-650S, 35 µm, 5 L
	43201	Toyopearl DEAE-650M, 65 µm, 100 mL
	07473	Toyopearl DEAE-650M, 65 µm, 250 mL
	14693	Toyopearl DEAE-650M, 65 µm, 1 L
	07974	Toyopearl DEAE-650M, 65 µm, 5 L
	07988	Toyopearl DEAE-650C, 100 µm, 250 mL
	14694	Toyopearl DEAE-650C, 100 µm, 1 L
	07989	Toyopearl DEAE-650C, 100 µm, 5 L
	21360	ToyoScreen DEAE-650M, 1 mL x 6 ea.
	21361	ToyoScreen DEAE-650M, 5 mL x 6 ea.
	21392	ToyoScreen IEC Anion Mix Pack, 1 mL x 3 grades x 2 ea. (DEAE, SuperQ, QAE)
	21393	ToyoScreen IEC Anion Mix Pack, 5 mL x 3 grades x 2 ea. (DEAE, SuperQ, QAE)
	21396	ToyoScreen IEC Mix Pack, 1 mL x 6 grades x 1 ea. (DEAE, SuperQ, QAE, CM, SP650, SP-550)
	21397	ToyoScreen IEC Mix Pack, 5 mL x 6 grades x 1 ea. (DEAE, SuperQ, QAE, CM, SP650, SP-550)
	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 DEAE-650 chromatographic resin is designed for anion 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 sizes (mean diameter):
 35 µm = "S" grade
 65 µm = "M" grade
 100 µm = "C" grade
 Supplied as slurry in 20 % ethanol (v/v).

Physicochemical Specifications:

<ul style="list-style-type: none"> ▪ Appearance 	White resin slurry which settles upon standing
<ul style="list-style-type: none"> ▪ Particle Size Distribution (>80 % within range) 	20 – 50 µm for DEAE-650S 40 – 90 µm for DEAE-650M 50 – 150 µm for DEAE-650C

▪ Exclusion Limit	5 x10 ⁶ Dalton (globular protein)
▪ Mean Pore Diameter	1000 Å
▪ Pressure drop across the column	max. 7 bar (recommended)
▪ Operating Linear Flowrate	normally 10 – 600 cm/hour (depending on particle size)
▪ Ion Exchange Capacity	DEAE-650S,M 0.1 ± 0.02 meq/mL DEAE 650C 0.08 ± 0.03 meq/mL
▪ Protein Adsorption Capacity	30 ± 5 mg/mL (Bovine Serum Albumin)
▪ Bacterial Count	≤ 100 CFU/mL
▪ Endotoxin Concentration	≤ 10.0 endotoxin units/mL
▪ Pack sizes and type	50 mL, 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.
▪ 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	not observed, no visual evidence
▪ Eluable Matter	< 0.2 %
▪ Shelf Life Stability	Minimum 5 years

For detailed test procedures please refer to Regulatory Support File BB-MF-3907.