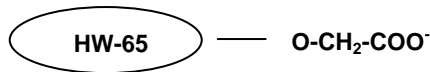


Toyopearl[®] CM-650 Resins

(weak cation exchange chromatography resins)



Part Numbers:	19803	Toyopearl CM-650S, 35µm, 25mL	21366	ToyoScreen CM-650M, 1mL x 6 ea.
	07474	Toyopearl CM-650S, 35µm, 250mL	21367	ToyoScreen CM-650M, 5mL x 6 ea.
	14695	Toyopearl CM-650S, 35µm, 1L	21394	ToyoScreen IEC Cation Mix Pack, 1mL x 3 grades x 2 ea. (CM, SP-650, SP-550)
	07971	Toyopearl CM-650S, 35µm, 5L	21395	ToyoScreen IEC Cation Mix Pack, 5mL x 3 grades x 2 ea. (CM, SP-650, SP-550)
	43203	Toyopearl CM-650M, 65µm, 100mL	21396	ToyoScreen IEC Mix Pack, 1mL x 6 grades x 1 ea. (DEAE, SuperQ, QAE, CM, SP650, SP-550)
	07475	Toyopearl CM-650M, 65µm, 250mL	21397	ToyoScreen IEC Mix Pack, 5mL x 6 grades x 1 ea. (DEAE, SuperQ, QAE, CM, SP650, SP-550)
	14696	Toyopearl CM-650M, 65µm, 1L	21400	ToyoScreen Column Holder
	07972	Toyopearl CM-650M, 65µm, 5L	42194	ToyoScreen Column Holder with fittings
	18839	Toyopearl CM-650M, 65µm, 50L		
	07991	Toyopearl CM-650C, 100µm, 250mL		
	14697	Toyopearl CM-650C, 100µm, 1L		
	07992	Toyopearl CM-650C, 100µm, 5L		
	19329	Toyopearl CM-650C, 100µm, 50L		

Product Description

Toyopearl chromatographic resins are comprised of a methacrylic polymer incorporating 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 CM-650 chromatographic resins are 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

72% (v/v) slurry in 20% (v/v) ethanol

This sheet contains the suggested operating conditions and specification ranges for Toyopearl CM-650 resins. Lot-specific specifications are included in the Certificate of Analysis (C of A) shipped with the product.

A. OPERATING CONDITIONS

Pressure Drop Across the Column	max. 0.3 MPa (recommended)
Operating Linear Flow Rate	normally 10 – 600 cm/hour (depending on particle size)
Cleaning in Place/Sanitization	0.5mol/L NaOH or 0.1mol/L HCl
Long Term Storage Conditions	20% (v/v) ethanol (shipping solvent)

B. SPECIFICATIONS

Appearance	White resin slurry which settles upon standing
Particle Size Distribution (>80% within range)	20 – 50µm for S-grade 40 – 90µm for M-grade 50 – 150µm for C-grade
Mean Pore Diameter	100nm
Exclusion Limit (base resin)	5 x 10 ⁶ Dalton (globular protein)
Ion Exchange Capacity	0.10 ± 0.02 eq/L for S- and M-grades 0.08 ± 0.03 eq/L for C-grade
Protein Adsorption Capacity	40 ± 10 g/L (Lysozyme) for S- and M-grades 35 ± 10 g/L (Lysozyme) for C-grades
Bacterial Count	≤ 100 CFU/mL
Endotoxin Concentration	≤ 10.0 endotoxin units/mL
Resin Volume per Container	The indicated volume is the settled resin volume.
Foreign Substance	not observed, no visual evidence
Eluable Matter	≤ 0.2%
Shelf Life Stability	Minimum 10 years