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PRODUCT SPECIFICATION SHEET

Product Name: Toyopearl® AF-Carboxy-650M (reactive resin for affinity chromatography)

Part Numbers:

43412	Toyopearl AF-Carboxy-650M, 65 µm, 10 mL
08006	Toyopearl AF-Carboxy-650M, 65 µm, 25 mL
08041	Toyopearl AF-Carboxy-650M, 65 µm, 100 mL
18827	Toyopearl AF-Carboxy-650M, 65 µm, 1 L
18828	Toyopearl AF-Carboxy-650M, 65 µm, 5 L

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® AF-Carboxy-650M is a reactive support resin for affinity chromatography. Toyopearl AF-Carboxy-650M provides a useful and mild approach for coupling to amino groups of proteins or low molecular weight ligands to Toyopearl HW-65 resin. The carbodiimide mediated coupling reaction produces an amide bond between ligand and support resin.

Formulation: Particulate resin (spherical), available in particle sizes (mean diameter):
 65 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)	40 – 90 µm for Toyopearl AF-Carboxy-650M
▪ 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 60 – 600 cm/hour
▪ Ion Exchange Capacity	100 ± 20 µeq/mL
▪ Protein Adsorption Capacity	40 ± 10 mg/mL (Lysozyme)
▪ Bacterial Count	≤ 100 CFU/mL
▪ Endotoxin Concentration	≤ 10.0 endotoxin units/mL
▪ Pack sizes and type	10 mL, 25 mL, 100 mL 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	< 0.1 %