

TSKgel® Alpha Series Columns for Size Exclusion Chromatography

Perform Size Exclusion Chromatography (SEC) with Either Polar or Non-Polar Solvents on the Same Column

TSKgel
PRODUCT OVERVIEW

Introduction

TSKgel Alpha series columns offer an alternative for performing size exclusion chromatography (SEC). These columns are packed with a hydrophilic, polymeric resin that exhibits strong mechanical stability and minimal swelling properties. These columns enable separations via SEC with a wide range of solvents, from water to non-polar organic, and are useful for the separation of polymers soluble in methanol. In comparison, polymers adsorb to polystyrene-divinylbenzene (PS-DVB) packings due to hydrophobic interaction. The TSKgel Alpha columns provide accurate molecular weight determinations of samples in DMF and show no retardation of polystyrene polymers as seen on PS-DVB. Also, system peaks derived from salts like LiBr that are present in eluents elute after the solvent peak and away from the oligomer region, preventing interference with polymer molecular weight determination.

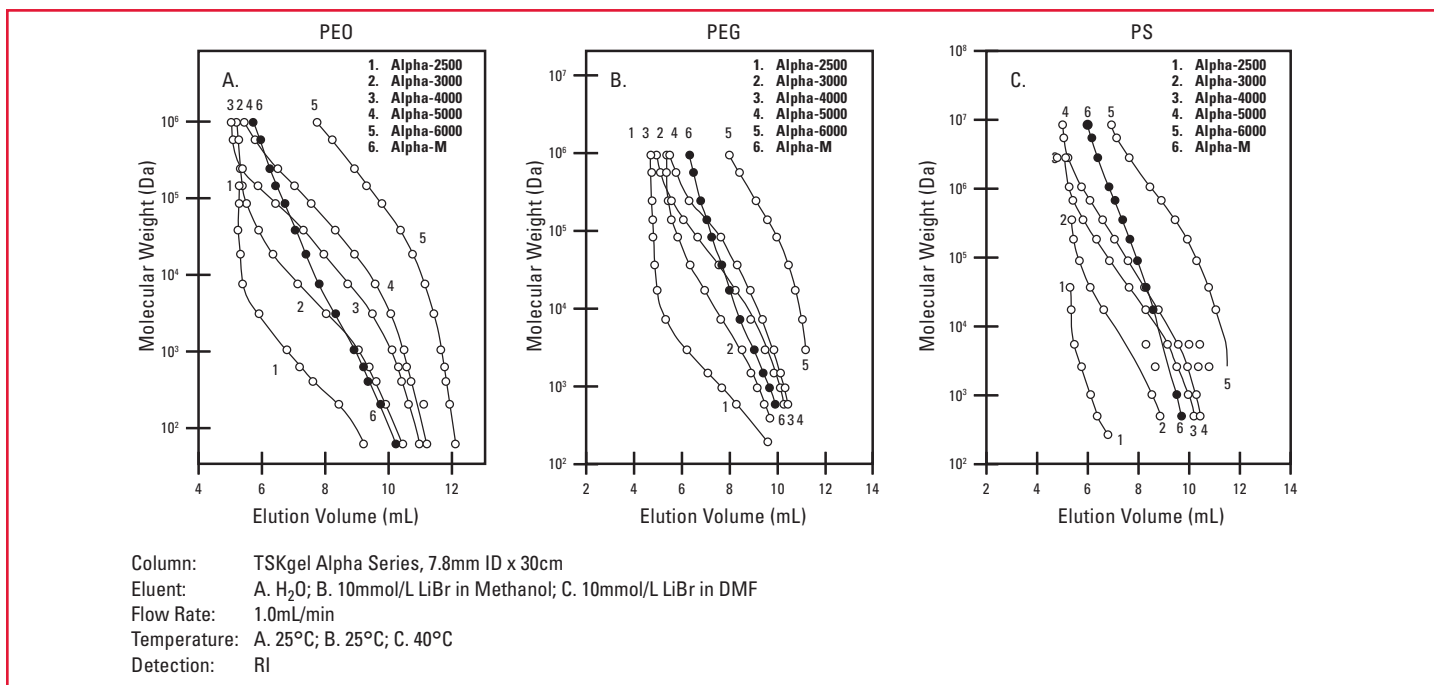
Product Highlights

- Unique hydrophilic packing material does not allow sample adsorption in polar organic solvents
- Stable in a wide variety of organic solvents at concentrations up to 100%
- Generate accurate polystyrene calibration curves due to minimized adsorption in DMF

Applications

The TSKgel Alpha series consists of six columns spanning a wide MW separation range from 100 to over 1,000,000 Da when using polyethylene oxide (PEO) as a standard. Each column in the series exhibits excellent linearity in its respective separation range. The mixed-mode column, TSKgel Alpha-M, has an extended linear calibration range and is suitable for samples with a broad molecular weight distribution as well as samples with unknown molecular weight. Use the TSKgel Alpha columns for separations of synthetic polymers, oligomers, additives, saccharides, nucleic acids, and detergents.

Figure 1. Polyethylene oxide (PEO), polyethylene glycol (PEG) and polystyrene (PS) calibration curves for TSKgel Alpha columns



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Ordering Information

Part #	Description	Matrix	Housing	ID (mm)	Length (cm)
18339	TSKgel Alpha-2500, 7μm, 25\AA	Polymer	Stainless Steel	7.8	30
18340	TSKgel Alpha-3000, 7μm, 150\AA	Polymer	Stainless Steel	7.8	30
18341	TSKgel Alpha-4000, 10μm, 450\AA	Polymer	Stainless Steel	7.8	30
18342	TSKgel Alpha-5000, 10μm, 1000\AA	Polymer	Stainless Steel	7.8	30
18343	TSKgel Alpha-6000, 13μm	Polymer	Stainless Steel	7.8	30
18344	TSKgel Alpha-M, 13μm, mixed bed	Polymer	Stainless Steel	7.8	30
18345	Guard Column for 7.8mm ID TSKgel Alpha columns	Polymer	Stainless Steel	6	4



TOSOH

TOSOH BIOSCIENCE

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