

TSK-GEL[®] IC Anion Products

Part Numbers:	Product Description:
06837	IC-Anion-PW (Polypropylene), 4.6mm ID x 5cm, 10 μ m
14463	IC-Anion-PW _{XL} (Stainless Steel), 4.6mm ID x 3.5cm, 6 μ m
18009	IC-Anion-PW _{XL} (PEEK), 4.6mm ID x 3.5cm, 6 μ m
18010	IC-Anion-PW _{XL} (PEEK), 4.6mm ID x 7.5cm, 6 μ m
06839	IC-Anion-SW (Polypropylene), 4.6mm ID x 5cm, 5 μ m
16308	Guard Column IC-AS, 3.0mm ID x 1cm, 17 μ m (for IC-Anion-PW/PW _{XL} /SW columns)

This sheet contains the recommended operating conditions and the specifications for TSK-GEL IC Anion columns and guard columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS	
1. Shipping and Inspection Solvent:	IC-Anion-PW: 360mg H ₃ BO ₃ + 500mg Na ₂ B ₄ O ₇ ·10H ₂ O + 5.0g glycerin + 300mg potassium gluconate + 120mL acetonitrile + 30mL n-butanol; dilute to 1L with water. IC-Anion-PW _{XL} : 360mg H ₃ BO ₃ + 575mg Na ₂ B ₄ O ₇ ·10H ₂ O + 5.0g glycerin + 350mg potassium gluconate + 40mL acetonitrile + 30mL n-butanol; dilute to 1L with water. IC-Anion-SW: MeOH
2. Flow Rate:	For analysis with aqueous solvent, the flow rate of 0.5mL/min ~ 1.0mL/min is recommended. The maximum flow rate for all grades of TSK-GEL IC series is 1.2mL/min (25°C).
3. Max. Pressure:	≥ 7MPa
4. pH Range:	IC-Anion-PW/PW _{XL} : 2.0 ~ 12.0 IC-Anion-SW: 2.0 - 7.5
5. Temperature:	IC-Anion-PW/PW _{XL} : 20 - 60°C IC-Anion-SW: 20 - 45°C
6. Organic Solvents:	Water soluble organic solvents are often used as a modifier to reduce hydrophobic interaction between sample molecules and packing material. The acceptable concentration of organic solvent is: IC-Anion-PW/PW _{XL} : ≤ 20% (v/v) IC-Anion-SW: 0-100% (v/v)
7. Cleaning Solvents:	Removal of Polyvalent Electrolytes Prolonged operation with complex mixtures may lead to gradual accumulation of polyvalent electrolyte compounds, which is evidenced by changes in chromatographic behavior and apparent loss of ion exchange capacity. Absorbed material can be stripped from the column by flushing with the following solvents: IC-Anion-PW/PW _{XL} : Buffer containing 100mmol/L of the salt used for the eluent IC-Anion-SW: Nitric acid (100mmol/L)
8. Storage:	<ul style="list-style-type: none"> Store the column 15°C ~ 30°C. The columns may freeze and their efficiency may degrade if the temperature drops below 0°C. It is not necessary to replace the mobile phase when storing the column as long as the caps prevent leaking.
9. Counter ion:	<ul style="list-style-type: none"> 06839: hydrogen ion Other PNs: boronate and gluconate
B. SPECIFICATIONS	
The performance of the TSK-GEL IC Anion columns are tested under the conditions described in the data sheet. All columns have passed the following quality control specifications:	
1. Theoretical Plates (N):	PN 06837: ≥ 1,100 (4.6mm ID x 5cm) PN 14463: ≥ 1,000 (4.6mm ID x 3.5cm) PN 18009: ≥ 1,000 (4.6mm ID x 3.5cm) PN 18010: ≥ 2,000 (4.6mm ID x 7.5cm) PN 06839: ≥ 1,400 (4.6mm ID x 5cm)
2. Asymmetry Factor (AF):	PN 06837: 0.90 – 1.50 (4.6mm ID x 5cm) PN 14463: 0.80 – 1.50 (4.6mm ID x 3.5cm) PN 18009: 0.80 – 1.50 (4.6mm ID x 3.5cm) PN 18010: 0.80 – 1.50 (4.6mm ID x 7.5cm) PN 06839: 0.50 – 1.10 (4.6mm ID x 5cm)

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