

Supplemental Information related to TSKgel® Amide-80 2μm, TSKgel guardcolumn Amide-80 2μm and TSKgel guardcolumn Amide-80 5μm columns

INSTRUCTION MANUAL for TSKgel Amide-80 2μm, TSKgel guardcolumn Amide-80 2μm and TSKgel guardcolumn Amide-80 5μm

To help protect you and/or your property from potential damage and ensure personal safety, please read the "Precautions" which are printed in the beginning of the "TSK-GEL Amide-80 Series" INSTRUCTION MANUAL thoroughly before using the above TSKgel Amide-80 2μm, TSKgel guardcolumn Amide-80 2μm and TSKgel guardcolumn Amide-80 5μm columns.

For these TSKgel Amide-80 2μm and TSKgel guardcolumn Amide-80 2μm columns, please read "Precautions", section 1, section 3, section 7 (Table 2), section 8, section 11 (Table 3) and section 13 (Table 6) on this Supplemental Information sheet instead of the corresponding sections you find on the "TSK-GEL Amide-80 Series" INSTRUCTION MANUAL. Please read section 4 (13) in addition to those in each section on the "TSK-GEL Amide-80 Series" INSTRUCTION MANUAL.

For this TSKgel guardcolumn Amide-80 5μm column, please read "Precautions", section 3 and section 11 on this Supplemental Information sheet instead of the corresponding sections you find on the "TSK-GEL Amide-80 Series" INSTRUCTION MANUAL.

Precautions: Shipping Solvents

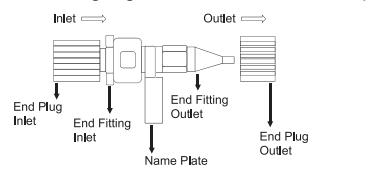
| | |
|---|---------------------------------|
| CH ₃ CN | TSKgel guardcolumn Amide-80 2μm |
| CH ₃ CN/H ₂ O=85/15 | TSKgel Amide-80 2μm |
| CH ₃ CN/H ₂ O=75/25 | TSKgel guardcolumn Amide-80 5μm |

1. General Information

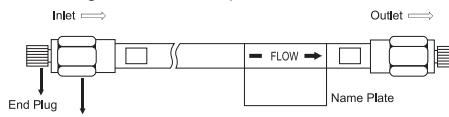
This TSKgel guardcolumn Amide-80 2μm column has the outlet end fitting with an external male connector so that it can be easily connected to analysis column.

3. Column Parts

For TSKgel guardcolumn Amide-80 2μm



For TSKgel Amide-80 2μm



For TSKgel guardcolumn Amide-80 5μm

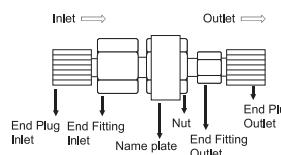


Figure 2 Column Parts

4. Column Installation

(13) To directly connect the TSKgel guardcolumn Amide-80 2μm column to another analytical column, finger-tighten the connection between the outlet of the TSKgel guardcolumn Amide-80 2μm column and the inlet of the analytical column, and then tighten with appropriate wrenches until you feel some resistance. Check solvent leaks from the connection. The following operations may cause permanent deterioration in column efficiency.

- a) Damage to the tip of the outlet end fitting caused by mechanical force such as accidentally dropping the column.

- b) Tightening the connection between the two columns to more than 2.0 N·m of torque (more than about 30 degrees).
- c) Repeated connections and disconnections of the two columns may cause considerable deterioration of the performance of column. It is recommended that the two columns be kept connected during storage.
- d) Connection to other companies' columns is not compatible with Tosoh Corporation's.

7. Flow Rate

Table 2 Maximum Pressure

| Part No. | Type | Column Size mm(I.D.) × cm(L) | Maximum Pressure (MPa) |
|----------|---------------------|------------------------------|------------------------|
| 0023454 | TSKgel Amide-80 2μm | 2.0 × 5 | 40.0 |
| 0023455 | TSKgel Amide-80 2μm | 2.0 × 10 | 60.0 |
| 0023456 | TSKgel Amide-80 2μm | 2.0 × 15 | 80.0 |
| 0023457 | TSKgel Amide-80 2μm | 3.0 × 5 | 40.0 |
| 0023458 | TSKgel Amide-80 2μm | 3.0 × 10 | 60.0 |
| 0023459 | TSKgel Amide-80 2μm | 3.0 × 15 | 80.0 |

8. Temperature

TSKgel Amide-80 2μm : 10 ~ 50 °C

11. Guard Column

11-2 Type and Selection of Guard Columns

Table 3 Guard Columns

| Part No. | Type | Column Size mm(I.D.) × cm(L) | Applied Column mm(I.D.) × cm(L) |
|----------|---------------------------------|------------------------------|--|
| 0019021 | TSKgel guardcolumn Amide-80 5μm | 4.6 × 1 | TSKgel Amide-80 5μm (4.6 × 5, 10, 25) |
| 0023460 | TSKgel guardcolumn Amide-80 2μm | 2.0 × 1 | TSKgel Amide-80 2μm (2.0 × 5, 10, 15 and 3.0 × 5, 10, 15) |

13. Quality Specification and Warranty

13-3 Warranty

Table 6 Guaranteed Specifications

| Part No. | Type | Column Size mm(I.D.) × cm(L) | Number of theoretical plates (TP/Column) | Asymmetry Factor |
|----------|---------------------|------------------------------|--|------------------|
| 0023454 | TSKgel Amide-80 2μm | 2.0 × 5 | 5,800 | 0.90~1.60 |
| 0023455 | TSKgel Amide-80 2μm | 2.0 × 10 | 14,000 | 0.90~1.60 |
| 0023456 | TSKgel Amide-80 2μm | 2.0 × 15 | 21,500 | 0.90~1.60 |
| 0023457 | TSKgel Amide-80 2μm | 3.0 × 5 | 8,300 | 0.90~1.60 |
| 0023458 | TSKgel Amide-80 2μm | 3.0 × 10 | 16,500 | 0.90~1.60 |
| 0023459 | TSKgel Amide-80 2μm | 3.0 × 15 | 24,000 | 0.90~1.60 |

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