

# Chromolith® Guard Cartridges

## Mounting Instructions

### Dear HPLC User,

Thank you for using Chromolith® Guard Cartridges.

Using guard cartridges will protect your Chromolith® HPLC column from contamination and extend the lifetime of the column.

Please note that we have four types of different guard cartridge holders:

| Guard cartridge holder type | Material holder is made of | Max backpressure   | How to tighten holder              | Guard Cartridge I.D., mm | Guard Cartridge length, mm |
|-----------------------------|----------------------------|--------------------|------------------------------------|--------------------------|----------------------------|
| a)                          | PEEK                       | 200 bar (2940 psi) | Finger tight                       | 2, 3                     | 5                          |
| b)                          | PEEK lined SS              | 400 bar (5880 psi) | Finger tight + tool (not included) | 2, 4.6                   | 5, 10                      |
| c)                          | SS                         | 400 bar (5880 psi) | Finger tight + tool (not included) | 4.6                      | 5, 10                      |
| d)                          | PEEK / SS                  | 150 bar (2205 psi) | Finger tight + tool (not included) | 10                       | 10                         |

PEEK - Poly Ether Ether Ketone  
SS - Stainless Steel



The following three steps will help you to achieve the best performance when using your new Chromolith® Guard Cartridges.

### Step 1

Place the guard cartridge inside the cartridge holder (as shown in the figure on the right) and close the cartridge holder finger-tight. Make sure that both the guard cartridge and the inner seat receiving the cartridge are free from dust particles or other contaminants.

### Step 2

- **type a holder for 2 mm and 3 mm internal diameter guard columns** simply tighten firmly with finger pressure - **no tool required**
- **type b and c holders for 4.6 mm and type d holder for 10 mm internal diameter guard columns** use the wrench to securely seal the guard cartridge holder as follows:
  - 1) wrench-tighten a maximum of turn 30° to reach pressure stability of 400 bar for 4.6 mm I.D. columns, and 150 bar for 10 mm I.D. columns
  - 2) if leakage is observed, additionally wrench-tighten a maximum of 30° more

**Warning: turning more than 60° total might result in damage to the guard cartridge!**

### Step 3

Connect the guard cartridge holder to the Chromolith® HPLC column as shown in the figure on the right. Equilibrate as usual, flushing the column with the typical mobile phase sequences used for reversed-phase or normal phase chromatography.

General recommendations

- Change guard cartridges routinely after approximately 500 injections (depends on injection volume and cleanness of the sample)
- Guard cartridge holders for 5–4.6 mm and 10–4.6 mm guard cartridges are not compatible
- Guard cartridge holders for 2 mm or 3 mm I.D. guard cartridges are compatible
- Guard cartridge holders for 2 mm or 3 mm I.D. guard cartridges, 4.6 mm I.D. guard cartridges, 10 mm I.D. guard cartridges and 25 mm guard cartridges are not compatible.



Ordering information for Chromolith® Guard cartridge Holder

| Chromolith® Guard cartridge Holder |   |         |      |          |              |
|------------------------------------|---|---------|------|----------|--------------|
| for dimension                      |   |         | Type | Material | Item No.     |
| 5                                  | x | 2 and 3 | a    | PEEK     | 1.52004.0001 |
| 5                                  | x | 2       | b    | Bioinert | 1.52355.0001 |
| 5                                  | x | 4.6     | b    | Bioinert | 1.52255.0001 |
| 10                                 | x | 4.6     | b    | Bioinert | 1.52256.0001 |
| 5                                  | x | 4.6     | c    | SST      | 1.52032.0001 |
| 10                                 | x | 4.6     | c    | SST      | 1.52033.0001 |
| 10                                 | x | 10      | d    | PEEK/SST | 1.52037.0001 |

| Chromolith® Column coupler |              |
|----------------------------|--------------|
| for analytical columns     | 1.51467.0001 |
| for 25 mm ID columns       | 1.25259.0001 |

Ordering information for Chromolith® guard cartridges

| Column dimension                                                                   |         |        |              |              |              |    |              |                 |              |              |
|------------------------------------------------------------------------------------|---------|--------|--------------|--------------|--------------|----|--------------|-----------------|--------------|--------------|
| Length (mm)                                                                        | ID (mm) | RP-18e | HR RP-18e    | RP-8e        | HR RP-8e     | CN | Diol         | NH <sub>2</sub> | Si           |              |
| Chromolith® Guard cartridges [3 units]                                             |         |        |              |              |              |    |              |                 |              |              |
| 5                                                                                  | x       | 4.6    | 1.51451.0001 | 1.52025.0001 | 1.52013.0001 |    | 1.52050.0001 | 1.53175.0001    | 1.52030.0001 | 1.52011.0001 |
| 10                                                                                 | x       | 4.6    | 1.51452.0001 |              |              |    |              |                 |              |              |
| 5                                                                                  | x       | 3      | 1.52005.0001 |              |              |    |              |                 |              |              |
| 5                                                                                  | x       | 2      | 1.52009.0001 | 1.52325.0001 |              |    |              |                 |              |              |
| Chromolith® Guard cartridge Set [1 starter kit with holder and 3 guard cartridges] |         |        |              |              |              |    |              |                 |              |              |
| 5                                                                                  | x       | 2      | 1.52008.0001 |              |              |    |              |                 |              |              |
| 5                                                                                  | x       | 3      | 1.52004.0001 |              |              |    |              |                 |              |              |

Ordering information for Chromolith® WP 300 guard cartridges

| Column dimension                       |         |       |              |              |              |              |
|----------------------------------------|---------|-------|--------------|--------------|--------------|--------------|
| Length (mm)                            | ID (mm) | RP-18 | RP-8         | RP-4         | Epoxy        |              |
| Chromolith® Guard cartridges [3 units] |         |       |              |              |              |              |
| 5                                      | x       | 4.6   | 1.52273.0001 | 1.52268.0001 | 1.52263.0001 | 1.52254.0001 |
| 5                                      | x       | 2     | 1.52372.0001 |              | 1.52362.0001 | 1.52353.0001 |
| 10                                     | x       | 4.6   | 1.52272.0001 | 1.52267.0001 | 1.52262.0001 | 1.52253.0001 |

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