

# 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 cleanliness 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

Status: 2024-10-08  
Made in Germany

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