

CHROMABOND® PFAS special phase for PFAS enrichment

Key features

- Special phase for the enrichment of PFAS from several matrices.
- Outstanding recovery rates especially for various types of PFAS due to several sorbent retention mechanisms.
- Z Technical characteristics
- Special combination phase with weak anion exchanger, polymerbased material, pH stability 1 – 14
- Proprietary spherical particles
- Recommended application
- PFAS from water, textiles and sediments (contaminated soils).

Solid phase extraction of PFAS from water samples according to DIRECTIVE (EU) 2020/2184

MN Appl. No. 306980

Column type:

CHROMABOND[®] PFAS, 3 mL, 120 mg REF 7300009

Sample pretreatment:

1. The pH value of the sample shall be adjusted to the pH value of 3 with acetic acid or ammonia solution, if necessary.

2. Add the spiking solution containing the internal standard substances to the water sample in the sample bottle [adding 0.5 ng of each (5813/20 PFAS Native Solution / Mixture)] and mix thoroughly by shaking.

3. Adjust methanol content of sample solution [0 %, 5 % and 10 % (percent by volume)].

Column conditioning: Add 4 mL of 0.1 % NH₃ in methanol solution, 4 mL of methanol and 4 mL of water to the cartridge.

Sample application: Add 200 mL water sample with a flow rate of 5 mL/min to the cartridge. (Do not let the sorbent material in the cartridge go dry and ensure it is immersed in water at all times.)

Bottle Rinse: Rinse the sample bottle wall and reservoir column with 4 mL of 0.1 % NH_3 in methanol solution.

Washing step: Add 4 mL of water and 4 mL of acetate buffer solution to the cartridge and discard the eluate.

Drying step: Dry the cartridge for 2 min with vacuum and centrifuge the cartridge at 1500 g for about 2 min.

Elution: Add 4 mL of 0.1 % NH₃ in methanol solution with a flow rate of 3 mL/min and collect the eluate into the sample tubes. Eluent exchange: Evaporate eluate to dryness at 40 °C under a stream of nitrogen and dissolve residue in 0.5 mL methanol.

Further analysis: HPLC MS/MS MN Appl. No. 129570

Recovery rate (%) ± RSD (%) for 0 % methanol content in sample	Recovery rate (%) ± RSD (%) for 5 % methanol content in sample	Recovery rate (%) ± RSD (%) for 10 % methanol content in sample
112.6 ± 6.0	108.1 ± 6.5	105.3 ± 2.3
116.6 ± 2.1	101.9 ± 2.0	102.2 ± 2.1
100.7 ± 1.4	100.5 ± 2.3	102.0 ± 0.7
95.1 ± 0.9	100.5 ± 2.4	100.8 ± 3.1
92.0 ± 5.5	94.0 ± 14.6	88.0 ± 6.7
86.8 ± 1.6	89.1 ± 6.3	70.0 ± 4.4
68.9 ± 4.0	76.9 ± 6.9	50.5 ± 2.5
60.5 ± 1.6	80.6 ± 11.1	47.9 ± 2.8
54.1 ± 1.1	79.5 ± 9.1	43.4 ± 2.4
49.3 ± 1.0	107.1 ± 5.0	107.1 ± 5.0
112.5 ± 2.4	100.1 ± 1.6	98.9 ± 1.5
93.7 ± 2.4	100.1 ± 1.1	98.9 ± 1.5
106.0 ± 1.9	100.9 ± 1.3	98.9 ± 1.3
99.3 ± 0.7	94.6 ± 3.9	85.0 ± 5.6
84.1 ± 2.4	82.8 ± 5.4	60.2 ± 4.4
67.2± 1.1	77.8 ± 7.9	47.1 ± 2.0
58.7 ± 0.8	75.3 ± 6.7	43.8 ± 1.6
59.8 ± 1.2	72.8 ± 6.2	45.3 ± 1.3
56.3 ± 1.2	75.3 ± 5.9	45.3 ± 1.5
55.0 ± 0.3	74.9 ± 3.9	47.2 ± 1.5
	Recovery rate (%) \pm RSD (%)for 0 % methanol content in sample112.6 \pm 6.0116.6 \pm 2.1100.7 \pm 1.495.1 \pm 0.992.0 \pm 5.586.8 \pm 1.668.9 \pm 4.060.5 \pm 1.654.1 \pm 1.149.3 \pm 1.0112.5 \pm 2.493.7 \pm 2.4106.0 \pm 1.999.3 \pm 0.784.1 \pm 2.467.2 \pm 1.158.7 \pm 0.859.8 \pm 1.256.3 \pm 1.255.0 \pm 0.3	Recovery rate (%) \pm RSD (%) for 0 % methanol content in sampleRecovery rate (%) \pm RSD (%) for 5 % methanol content in sample112.6 \pm 6.0108.1 \pm 6.5116.6 \pm 2.1101.9 \pm 2.0100.7 \pm 1.4100.5 \pm 2.395.1 \pm 0.9100.5 \pm 2.492.0 \pm 5.594.0 \pm 14.686.8 \pm 1.689.1 \pm 6.368.9 \pm 4.076.9 \pm 6.960.5 \pm 1.680.6 \pm 11.154.1 \pm 1.179.5 \pm 9.149.3 \pm 1.0107.1 \pm 5.0112.5 \pm 2.4100.1 \pm 1.693.7 \pm 2.4100.1 \pm 1.1106.0 \pm 1.9100.9 \pm 1.399.3 \pm 0.794.6 \pm 3.984.1 \pm 2.482.8 \pm 5.467.2 \pm 1.177.8 \pm 7.958.7 \pm 0.875.3 \pm 6.759.8 \pm 1.272.8 \pm 6.256.3 \pm 1.275.3 \pm 5.955.0 \pm 0.374.9 \pm 3.9

	Volume	Adsorbent weight → 120 mg	300 mg	Pack of	
	CHROMABOND® PFAS polypropylene columns				
	3 mL	7300009		30	
	6 mL		730283	30	
	CHROMABOND [®] PFAS polypropylene columns BIGpack				
	3 mL	7300009.250		250	
	6 mL		730283.250	250	