



HICHROM

Chromatography Columns and Supplies

SAMPLE PREPARATION Flash Chromatography

Catalogue 9

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FLASH CHROMATOGRAPHY

- Transfer methods from TLC to CLC
- Fast and economic methods
- Purification of organic synthesis products

Flash chromatography is a fast and economic column liquid chromatographic (CLC) method used in the preparative scale purification of organic compounds. The most commonly used stationary phase is silica gel (40-63µm), but other adsorbents and particle sizes can be used. Both prepacked flash columns and bulk media are available.

Macherey-Nagel Flash Cartridges

TLC is frequently used as a pre-test for flash chromatography development. TLC plates produced by Macherey-Nagel are coated with the same silica used for flash columns, enabling reproducible transfer of TLC results to flash columns.

CHROMABOND® Flash RS Cartridges

- Convenient operation and reliable upscaling
- Increases flexibility
- Increases analytical safety
- Saves time and money

Macherey-Nagel offers a range of ready-to-use flash cartridges for use with Isco® flash systems or as a stand-alone version for all pump and detector combinations. A wide selection of adsorbent type, cartridge dimensions and pore sizes is available (see Figure 1). CHROMABOND® Flash RS cartridges are ideal for flash separations from 10mg up to 160g. They can be used as a stand-alone system with any pump, detector and fraction collector combination using the CHROMABOND Flash Starter Kit (see Figure 2). Macherey-Nagel also supplies flash cartridges suitable for Biotage and other flash systems. Please enquire for further details.

Ordering information for a selection of unbonded silica and C18 bonded silica phases is given below. Please enquire for other phases and other dimension cartridges not listed.



Figure 1. CHROMABOND Flash RS Cartridges



Figure 2. CHROMABOND Flash Starter Kit

Ordering Information

Column Type	Column Dimensions (mm)	Adsorbent SiOH				Adsorbent C18 ec			
		Weight (g)	Pack Size	Cat. No.	Price	Weight (g)	Pack Size	Cat. No.	Price
CHROMABOND Flash RS cartridges for Isco Systems^{1, 2}									
RS 4	98 x 12.4	4	20	732800		4.3	2	732810	
RS 15	116 x 21.2	15	20	732801		16.4	1	732811	
RS 25	165 x 21.2	25	15	732802		26	1	732812	
RS 40	171 x 26.4	40	15	732803		43	1	732813	
RS 200	200 x 60.0	200	6	732806		220	1	732816	
CHROMABOND Flash Starter Kit ³				730798					
CHROMABOND Flash cartridges for Biotage Flashmaster™ Systems²									
FM 15/2	90 x 15.8	2	50	730881		2	50	730890	
FM 25/5	100 x 20.5	5	50	730891		5	50	730884	
FM 70/10	154 x 26.8	10	30	730885		10	20	730886	
FM 150/50	170 x 38.2	50	20	730887		50	10	730888	

¹ Cartridges packed with NH₂, OH, CN and ALOX phases also available ² Other dimension cartridges available ³ Please enquire for details of contents

YMC-DispoPackAT Flash Cartridges

- Irregular (40-63µm) and spherical (25µm) particles
- Compatible with virtually all Flash systems
- Fast and easy installation using luer/luer-lock connectors
- High reproducibility

YMC DispoPackAT flash cartridges are available packed with irregular (40-63µm) or spherical (25µm) particles. The smaller spherical particles allow a doubling of the flow rate, due to generation of lower back pressures, compared with standard irregular silica. As a result, improved resolution is achieved in less time. Figure 3 illustrates the 50% time saving through the use of high resolution at high flow conditions. Figure 4 shows the typical reproducibility achievable using YMC-DispoPackAT SIL. Cartridges are available with adsorbent weight ranging from 12g to 800g.



Specifications

Particle Shape	Irregular	Spherical
Particle Size (µm)	40-63	25
Pore Size (Å)	60 (SIL), 150 (NH ₂ , Diol, ODS)	80
Available Bondings	SIL, NH ₂ , Diol, ODS	SIL, NH ₂ , Diol, ODS
Available Sizes (g)	12, 40, 120, 300, 800	12, 40, 120, 300, 800

Flash cartridge: YMC-DispoPackAT SIL-25 (40g)
Eluent: n-Hexane – ethyl acetate (90:10)
Detection: UV, 254nm

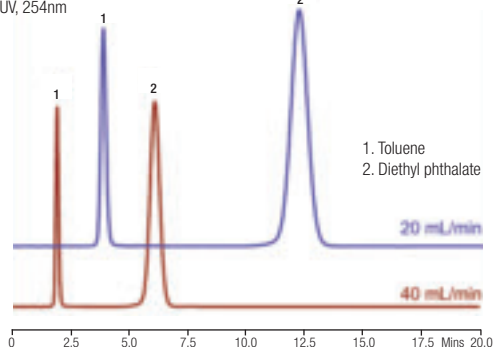


Figure 3. High resolution at high flow

Flash cartridge: YMC-DispoPackAT SIL (12g)
Eluent: n-Hexane – ethyl acetate (90:10)
Flow rate: 10ml/min
Detection: UV, 254nm

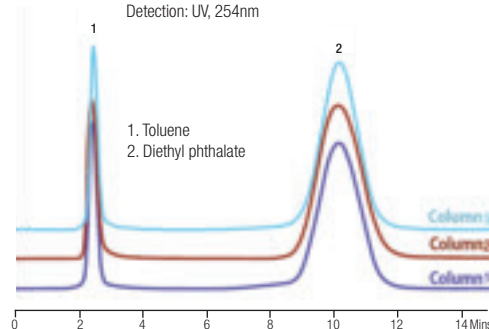


Figure 4. High reproducibility

Irregular particles

Cartridge Weight (g)	Pack Size	YMC-DispoPackAT Phase			
		SIL	NH ₂	Diol	ODS
12	24	DPA12SLK06I5224	DPA12NHK15I5224	DPA12DLK15I5224	DPA12ABK15I5224
40	12	DPA40SLK06I5212	DPA40NHK15I5212	DPA40DLK15I5212	DPA40ABK15I5212
120	6	DPAA2SLK06I5206	DPAA2NHK15I5206	DPAA2DLK15I5206	DPAA2ABK15I5206
300	1	DPAC0SLK06I5201	DPAC0NHK15I5201	DPAC0DLK15I5201	DPAC0ABK15I5201
800	1	DPAH0SLK06I5201	DPAH0NHK15I5201	DPAH0DLK15I5201	DPAH0ABK15I5201

Spherical particles

Cartridge Weight (g)	Pack Size	YMC-DispoPackAT Phase			
		SIL-25	NH ₂ -25	Diol-25	ODS-25
12	24	DPA12SLK08S2524	DPA12NHK08S2524	DPA12DLK08S2524	DPA12ABK08S2524
40	12	DPA40SLK08S2512	DPA40NHK08S2512	DPA40DLK08S2512	DPA40ABK08S2512
120	6	DPAA2SLK08S2506	DPAA2NHK08S2506	DPAA2DLK08S2506	DPAA2ABK08S2506
300	1	DPAC0SLK08S2501	DPAC0NHK08S2501	DPAC0DLK08S2501	DPAC0ABK08S2501
800	1	DPAH0SLK08S2501	DPAH0NHK08S2501	DPAH0DLK08S2501	DPAH0ABK08S2501

Bulk Material

Please contact Hichrom for details of YMC bulk materials.