



# HICHROM

Chromatography Columns and Supplies

LC COLUMNS  
LiChroprep

Catalogue 9

## Hichrom Limited

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## LiChrorep®

- Irregular preparative silica
- Three particle size ranges
- Guaranteed reproducibility from analytical (LiChrosorb and LiChrospher) to preparative phases
- Competitive price

LiChrorep® is a proven, highly successful packing material providing fast, effective and reproducible separations in HPLC and medium pressure chromatography. Merck offer three different particle size ranges of LiChrorep silica, available as a base silica or C18 bonded phase. The smaller particle size range, 15-25µm, is the most suitable for HPLC. LiChrorep RP-8, amino-, cyano- and diol-bonded phases are available in larger particle size materials.

### Preparative Scale-Up

Figure 1A shows an analytical scouting separation of a prostaglandin sample performed at 1.5ml/min on a 10µm 250 x 4mm LiChrosorb Si60 column. A scaled-up separation of the same prostaglandin sample (Figure 1B), but with higher loading, was performed at 2.0litre/min on a 600 x 200mm LiChrorep Si60 column packed with 25-40µm particles. In this example, four different fractionation zones were identified from which the prostaglandin purity was identified.

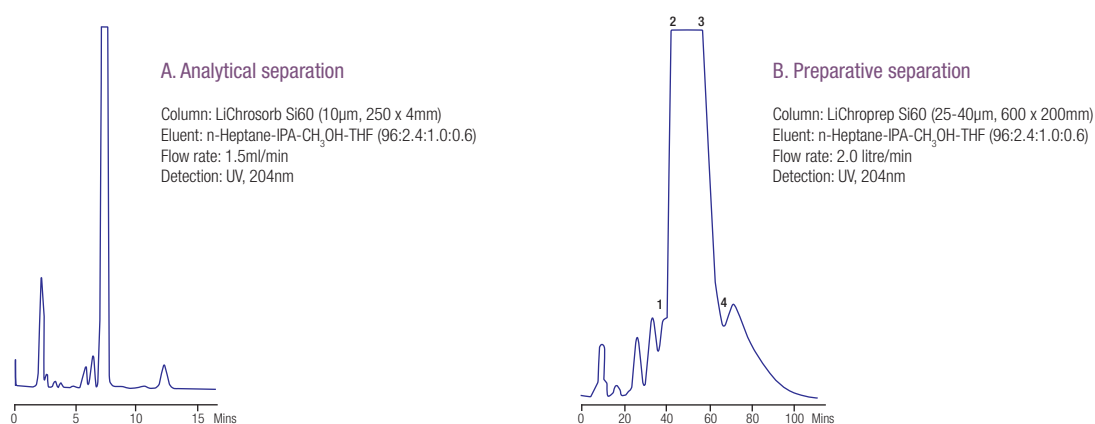
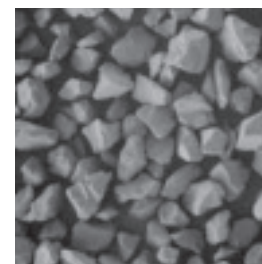


Figure 1. Example of preparative scale-up

### LiChrorep RP-18 Phase

Particle Size Range (µm)	15-25	25-40	40-63
Mean Particle Size (µm)	22	32	54
Minimum Theoretical Plates (plates/m) <sup>1</sup>	10,000	5,500	1500
Typical Column Back Pressure (psi) <sup>1</sup>	150	90	75
Surface Area (m <sup>2</sup> /g)		320	
Pore Size (Å)		100	
Carbon Load (%)		17-19	

<sup>1</sup> 250 x 4 mm, CH<sub>3</sub>CN-H<sub>2</sub>O (75:25) @ 1ml/min.



### Ordering Information

LiChrorep Phase	Particle Size (µm)	Bulk Material <sup>1</sup>			
		100g	250g	500g	1kg
Si 60	15-25	-	-	-	09336.1000
	25-40	-	-	-	09390.1000
	40-63	-	13905.0250	-	13905.1000
RP-18	15-25	-	-	13901.0500	-
	25-40	09303.0100	-	09303.0500	-
	40-63	-	13900.0250	-	13900.1000
RP-8	40-63	-	09362.0250	-	09362.1000
DIOL	40-63	-	13973.0250	-	-
NH2	40-63	-	13974.0250	-	13974.1000
CN	40-63	-	13959.0250	-	-

<sup>1</sup> Larger pack sizes also available