

ES Industries SFC Columns

ES Industries offer a range of phases specifically designed for SFC separations. These GreenSep™ phases have proved to show superior separation, selectivity, peak shape and loading capacity compared to conventional normal-phase HPLC materials adapted for SFC (eg. amino, cyano, diol). The general features and ordering information for 250 x 4.6mm i.d. columns are highlighted below. All of these materials are also available in semi-preparative (10mm and 15mm i.d.) and preparative (20mm, 30mm and 50mm i.d.) dimensions. ES Industries also offer a range of Chromegabond® SFC phases, including Amine HD, Cyano HS and Diol HD.

Phase (5µm)	Pore Size (Å)	Features	Ordering Information (250 x 4.6mm) ¹	
			Catalogue No.	Price
GreenSep™ Phase				
Ethylpyridine	120	Good for strongly basic compounds without use of additives	155291-GS-PYE	
Amino Phenyl	120	Normal phase mixed mode. Separation of amines, alcohols and acids without use of additives	155291-GS-APH	
Nitro	120	Useful for separation of geometrical isomers and diastereomers, also compounds containing aromatic groups, polarisable electrons and conjugate systems. Strong charge transfer mechanism	155291-GS-NO2	
Pyridyl Amide	120	Separation of compounds functionalized with both amine bases and acidic groups. Does not require addition of TFA or amine modifier	155291-GS-PYA	
DEAP (Diethylaminopropyl)	120	Shows greater selectivity, superior peak shapes and increased loading capacity than conventional amino phases. Amine additives not required	155291-GS-DEAP	
PFP	120	Separation of geometrical isomers and diastereomers. Recommended for compounds containing aromatic groups, polarisable electrons and conjugate systems. Also suitable for halogenated compounds	155291-GS-PFP	
Basic	120	Based on imidazole chemistry. Good retention of amine-containing basic compounds	155291-GS-BC	
Silica	120	Ultra high purity silica specifically designed for SFC	155291-GS-SI	
Chromegabond® Phase				
Amine HD	100	High loading for preparative applications	155221-A/HD-SFC	
Cyano HS	60	High surface area and high loading capacity	155211-CN/HS-SFC	
Diol HD	60	High density diol bonding for high loading capacity	155211-D/HD-SFC	

¹ Other dimensions available

GreenSep Guard Column System

GreenSep GCS is a new guard column system developed specifically for use with preparative SFC columns. Hardware specially designed for SFC is employed and is packaged with a high performance coupler for attachment to the SFC column. GreenSep GCS is packed with highly deactivated, high performance silica particles and is designed to maintain the chromatographic integrity of the system. Four sizes are available, depending on the diameter of the preparative column. Please enquire with Hichrom for ordering details.

Column: GreenSep Ethylpyridine (5µm, 150 x 4.6mm)
Eluent: 5-50% Gradient CO₂:CH₃OH
Flow rate: 2.35ml/min
Temperature: 35°C

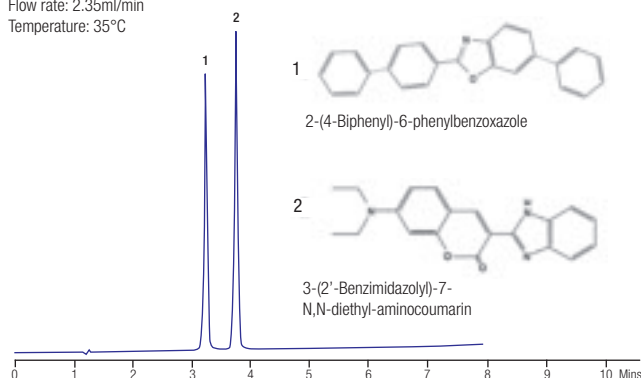


Figure 3. SFC of basic compounds

Column: GreenSep Pyridyl Amide (5µm, 150 x 4.6mm)
Eluent: 5-50% Gradient CO₂:CH₃OH
Flow rate: 2.35ml/min
Temperature: 35°C

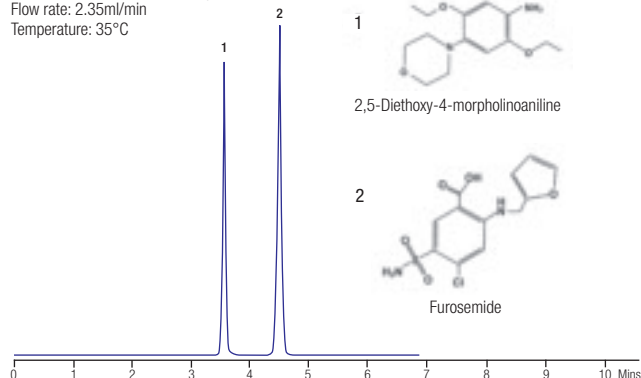


Figure 4. SFC of basic and acidic compounds