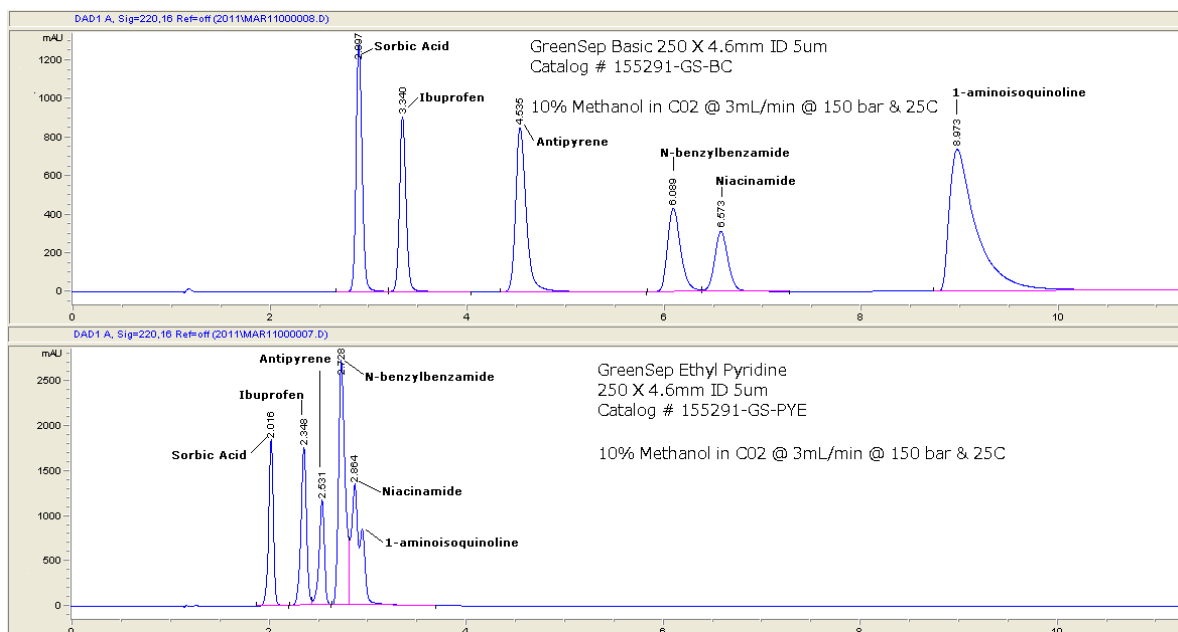


# APPLICATION NEWS

## GreenSep™ Basic SFC Columns

GreenSep™ *Basic* – Supercritical fluid chromatography (SFC) is a powerful chromatographic technique for the separation of complex mixtures. It has been useful in the areas of preparative chromatography and rapid analysis chromatography. Many SFC separations have been forced to utilize older types of stationary phases from “normal phase” HPLC such as unmodified silica, diol, amino and cyano. These phases are poorly adapted to SFC and present a number of limitations for SFC separations. Limitations include: low capacity, poor selectivity, and poor peak shape for SFC separations.

At ES Industries we have developed a new line stationary phases specifically engineered for SFC separations, one of these phases is GreenSep Basic. This stationary phase has proven superior to conventional stationary phases (such as diol, cyano etc...) in the areas of separation selectivity, peak shape and loading capacity. GreenSep Basic is based on imidazole chemistry providing a highly basic character for this stationary phase. The chromatogram shown below is a prime example of the superior peak shape performance and separation capacity obtainable with the GreenSep Basic column with SFC. This chromatogram also compares GreenSep Basic with GreenSep Ethyl Pyridine. The chromatogram contains chemicals that are functionalized with amine groups and acidic groups, demonstrates the retention capability that GreenSep Basic can deliver to the SFC chromatographer. This chromatogram also shows the superior retention on GreenSep Basic when compared to GreenSep Ethyl Pyridine. GreenSep Basic offers the chromatographer greater flexibility in developing separation. GreenSep Basic is the SFC column ideally suited for the retention and rapid separation of chemicals containing amine groups. GreenSep Basic can easily replace conventional stationary phases used in SFC and deliver superior performance.



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**Leaders in Innovative HPLC Column Technology for over 40 years**

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	GreenSep™ Basic 3u 120A			
	<u>4.6mm (ID)</u>	<u>4.0mm (ID)</u>	<u>3.2mm (ID)</u>	<u>2.1mm (ID)</u>
5cm	115191-GS-BC	114191-GS-BC	11d191-GS-BC	112191-GS-BC
10cm	125191-GS-BC	124191-GS-BC	12d191-GS-BC	122191-GS-BC
15cm	135191-GS-BC	134191-GS-BC	13d191-GS-BC	132191-GS-BC
25cm	155191-GS-BC	154191-GS-BC	15d191-GS-BC	152191-GS-BC

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	GreenSep™ Basic 5u 120A			
	<u>4.6mm (ID)</u>	<u>4.0mm (ID)</u>	<u>3.2mm (ID)</u>	<u>2.1mm (ID)</u>
5cm	115291-GS-BC	114291-GS-BC	11d291-GS-BC	112291-GS-BC
10cm	125291-GS-BC	124291-GS-BC	12d291-GS-BC	122291-GS-BC
15cm	135291-GS-BC	134291-GS-BC	13d291-GS-BC	132291-GS-BC
25cm	155291-GS-BC	154291-GS-BC	15d291-GS-BC	152291-GS-BC

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	GreenSep™ Basic 10u 120A			
	<u>4.6mm (ID)</u>	<u>4.0mm (ID)</u>	<u>3.2mm (ID)</u>	<u>2.1mm (ID)</u>
10cm	125391-GS-BC	124391-GS-BC	12d391-GS-BC	122391-GS-BC
15cm	135391-GS-BC	134391-GS-BC	13d391-GS-BC	132391-GS-BC
25cm	155391-GS-BC	154391-GS-BC	15d391-GS-BC	152391-GS-BC
30cm	165391-GS-BC	164391-GS-BC	16d391-GS-BC	162391-GS-BC

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