

# SunShell 2-EP, 2.6 μm

## For Supercritical fluid Chromatography

2.6 μm core shell column shows only one third of back pressure to compare with 1.7 μm fully porous column although both show almost same efficiency. By such low back pressure, a difference of density of supercritical fluid between an inlet and an outlet of the column is reduced. Consequently, . 2.6 μm core shell column performs a superior separation for SFC.

### Characteristics of SunShell 2-EP

	Core shell silica							
	Particle size	Pore diameter	Specific surface area	Carbon content	Bonded phase	End- capping	Maximum operating pressure	Available pH range
SunShell 2-EP	2.6 µm	9 nm	150 m²/g	2.5%	2-Ethylpyridine	no	60 MPa or 8,570 psi	2 – 7.5

## Comparison between SunShell 2-EP and 1.7 µm fully porous 2-EP



Figure 1: Chromatogram of the separation for he 17component mix using the Sun Shell 2-EP 150 x 3.0 mm column. A methanol gradient of < 2 minutes was used on the Agilent 1260 Infinity SFC system. SFC conditions: flow rate: 4.0mL/min; outlet pressure 160 bar; column temperature 55°C. Gradient program: 5.0-7.5% in 0.20 min, then 7.5-20% in 1.3 min and held at 20% for 0.2 min.

Figure 2: Chromatogram of the separation for the 17component mix using Acquity UPC<sup>2</sup> Viridis 2-EP 100 x 3.0 mm column. 16 of the 17 components were resolved. A methanol gradient of < 2 minutes was used on the Agilent 1260 Infinity SFC system. SFC conditions: flow rate 3.5 mL/min; outlet pressure 160 bar; and column temperature 70°C. Gradient program: 5.0-12.5% in 1.0 min, 12.5% for 0.25 min, then 12.5-20% in 0.75 min.



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